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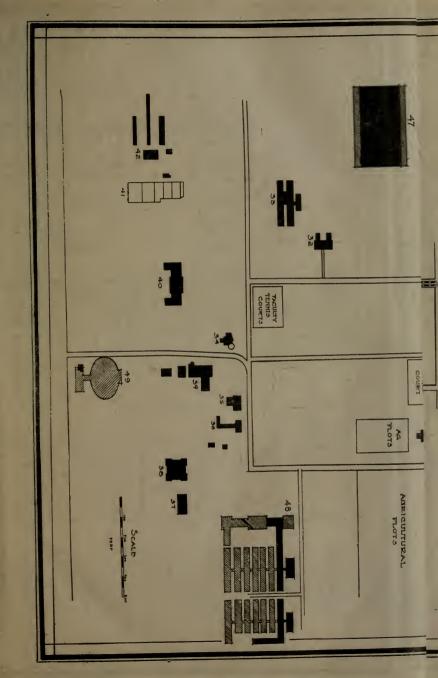
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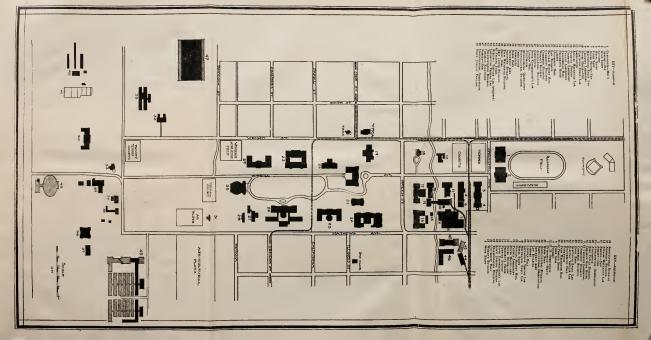
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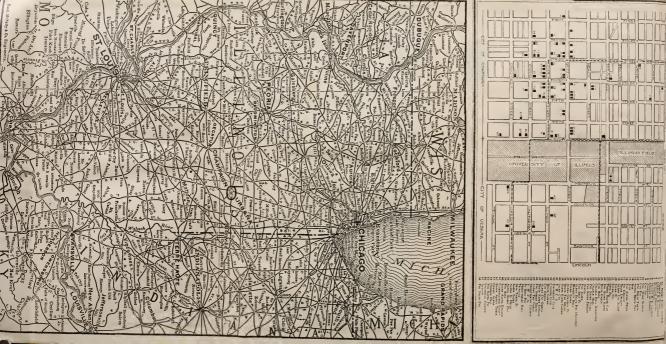


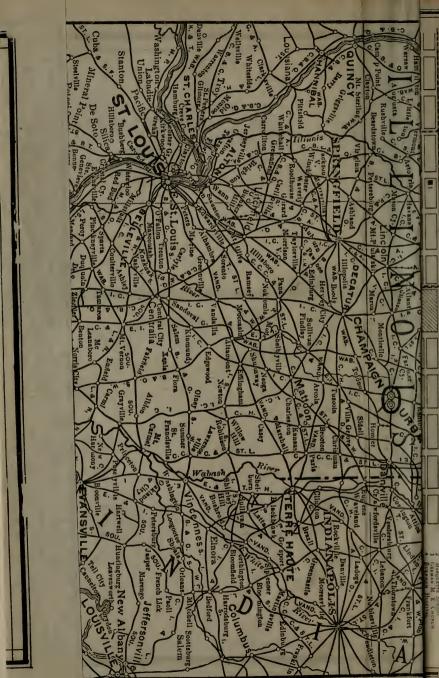
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## University of Illinois

# ANNUAL REGISTER

General Announcements, 1913-1914 Faculty and Courses, 1912-1913 Students, 1912-1913

URBANA-CHAMPAIGN
PUBLISHED BY THE UNIVERSITY &
1913

FLANIGAN-PEARSON CO.
PRINTERS AND BINDERS
CHAMPAIGN, ILLINOIS



112-1013 Oup.2

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## CALENDAR 1912, 1913, 1914

1912 1913 1914			
JULY	JANUARY	JULY	JANUARY
SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS
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#### THE UNIVERSITY CALENDAR

#### 1912-1913-1914

#### FIRST SEMESTER, 1912-1913

Sept. 10, Tues.

Sept. 11-14, Wed. to Sat. Sept. 16, 17, Mon., Tues. Sept. 18, Wed., 8 a. m.

4 p. m.

Oct. 7, Mon., 4 p. m. Nov. 4, Mon., 5 p. m.

Nov. 21-23, Thurs. to Sat. Nov. 27, Wed., 12 m. Dec. 2. Mon.

12 m.

4 p. m.

Dec. 10, Tues.

Dec. 13, Fri. Dec. 17, Tues.

Dec. 21, Sat., 12 m.

Dec. 31, Tues., 5 p. m.

1913

Jan. 6, Mon., 12 m.

Jan. 23, Thurs.

Jan. 30, Thurs.

Jan. 31, Fri.

Quarterly meeting of the Board of Trustees

Entrance examinations

Registration days Instruction begun

Freshman convocation

Senate Meeting

Latest day for announcement of subjects for all undergraduate and

graduate theses

High school conference
Thanksgiving recess begun

Illinois Day

Instruction resumed

Senate meeting

Quarterly meeting of the Board of

Trustees

Junior promenade

Christmas concert

Holiday recess begun

Latest day for submission of outlines of theses by candidates for professional degrees in engineering

Instruction resumed

Semester examinations begun

End of first semester

Annual sophomore cotillion

#### SECOND SEMESTER, 1912-1913

Registration days

Instruction begun

Senate meeting

Feb. 3, 4, Mon., Tues. Feb. 3, Mon., 4 p. m. Feb. 5, Wed., 8 a. m. Feb. 12, Wed. Feb. 21, Fri. March 1, Sat. March 2, Sun. March 11, Tues.

March 20, Thurs., 12 m. March 25, Tues., 12 m. April 1, Tues., 5 p. m.

April 7, Mon., 4 p. m. May 16, Fri., evening May 15-17, Thurs. to Sat. May 17, Sat.

5 p. m.

May, between 15 and 31

May 29, Thurs. May 30, Fri. June 5, Thurs. June 7, Sat., 12 m.

June 8, Sun. June 9, Mon.

June 10, Tues.

June 11, Wed.

Lincoln Day Annual military ball Annual band concert University Day Annual meeting of the Board of Trustees Easter recess begun Instruction resumed Latest day for filing of completed theses by candidates for professional degrees in engineering Senate meeting Interscholastic oratorical contest Public school art exhibit Interscholastic athletic meet Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses Hazelton prize drill Annual inspection Company competitive drill Semester examinations begun Military Day Semester examinations ended Latest day for acceptance of undergraduate theses Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses Baccalaureate address Class Day Senior ball Alumni Day Quarterly meeting of the Board of Trustees

Forty-second Annual Commencement

#### SUMMER SESSION, 1913

June 16, Mon. June 17, Tues. June 28, July 5, 12, 19, 26 Aug. 7, 8, Thurs., Fri. Registration day Instruction begun Entrance examinations Final examinations

#### FIRST SEMESTER, 1913-1914

Sept. 9, Tues.

Sept. 15-18, Mon. to Thurs. Sept. 22, 23, Mon., Tues.

Sept. 24, Wed., 8 a. m. 4 p. m.

Oct. 6, Mon., 4 p. m. Nov. 3, Mon., 5 p. m.

New as as Thomas to Con

Nov. 20-22, Thurs. to Sat. Nov. 26, Wed., 12 m. Dec. 1, Mon., 12 m.

4 p. m.

Dec. 2, Tues. Dec. 9, Tues.

Dec. 12, Fri.
Dec. 16, Tues
Dec. 19, Fri., 5 p. m.
Dec. 31, Wed., 5 p. m.

Quarterly meeting of the Board of Trustees

Entrance examinations Registration days Instruction begun Freshman convocation

Senate meeting

Latest day for announcement of subjects for all undergraduate and graduate theses

High School conference Thanksgiving recess begun Instruction resumed Senate meeting Illinois Day

Quarterly meeting of the Board of Trustees

Junior promenade Christmas concert Holiday recess begun

Latest day for submission of outlines of theses by candidates for professional degrees in engineering

1914 Jan. 5, Mon., 12 m. Jan. 29, Thurs. Feb. 2, Mon., 4 p. m. Feb. 5, Thurs. Feb. 6, Fri.

Instruction resumed
Semester examinations begun
Senate meeting
End of first semester
Annual sophomore cotillion

#### SECOND SEMESTER, 1913-1914

Feb. 9, 10, Mon., Tues. Feb. 11, Wed., 8 a. m. Feb. 12, Thurs. Feb. 20, Fri. March 2, Mon. March 7, Sat. March 10, Tues.

April 6, Mon., 4 p. m. 5 p. m.

April 9, Thurs., 12 m. April 14, Tues., 12 m. May 15, Fri., evening May 14-16, Thurs. to Sat. May 16, Sat.

5 p. m.

May, between 15 and 31

May 30, Sat.
June 4, Thurs.
June 6. Sat., 12 m.

June 9, Tues.

June 11, Thurs. June 14, Sun. June 15, Mon.

June 16, Tues. June 17, Wed. Registration days
Instruction begun
Lincoln Day
Annual military ball
University Day
Annual band concert
Annual meeting of the Board of

Trustees

Senate meeting

Latest day for filing of completed theses by candidates for professional degrees in engineering

Easter recess begun
Instruction resumed
Interscholastic oratorical contest
Public school art exhibit
Interscholastic athletic meet

Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses

Hazelton prize drill Annual inspection

Company competitive drill

Military Day

Semester examinations begun

Latest day for acceptance of undergraduate theses

Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses

Quarterly meeting of the Board of Trustees

Semester examinations ended Baccalaureate address

Class Day Senior ball

Alumni Day

Forty-third Annual Commencement

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THE SUPERINTENDENT OF PUBLIC INSTRUCTION
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A. P. GROUT, Winchester
MRS. LAURA B. EVANS, Taylorville 1915
ARTHUR MEEKER, Union Stock Yards, Chicago 1915
ALLEN F. MOORE, Monticello
WILLIAM L. ABBOTT, 120 Adams St., Chicago 1917
MRS. MARY E. BUSEY, Urbana
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Contege Section	
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P. S. HANER Tayl	orville
President of the Illinois Live Stock Breeders' Associatio	n
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	. 5
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J. P. MASON	Elgin
JOSEPH W. NEWMAN	Elgin
L. A. Spies	St. Jacob
LEWIS N. WIGGINS	Springfield
	a . a

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C. A. Rowe		Jacksonville
H. J. Sconce		Sidell
S. W. STRONG		Urbana
O. P. Wagner		Pontiac

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C. G. Winn
W. S. Perrine
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August Geweke
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 Delavan

 F. I. Mann
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 Elgin

 C. V. Gregory
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For the Board of Trustees, University of Illinois

A. Bement Chicago
For the Western Society of Engineers

F. H. CLARK Chicago

For the Western Railway Club

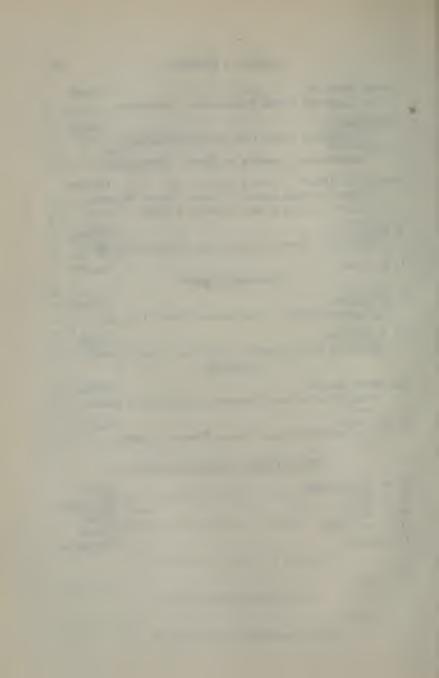
W. F. M. Goss

Urbana
For the Engineering Experiment Station

Adolph Mueller For the Illinois Manufacturers' Association	Decatur	
CARL SCHOLZ For the Illinois Coal Operators' Association	Chicago	
Conference Committee on Electric Traction Tests		
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<sup>\*</sup>On leave, Feb. 1, 1912, to Feb. 1, 1913.

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DAVID KINLEY, Ph.D., LL.D., Dean

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CHARLES HENRY MILLS, D.Mus., F.R.C.O.Eng., Director
THE SCHOOL OF EDUCATION

WILLIAM CHANDLER BAGLEY, Ph.D., Director WILFORD STANTON MILLER, A.M., Secretary

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WILLIAM CHANDLER BAGLEY, Ph.D., Director
THE SCHOOL OF PHARMACY
WILLIAM BAKER DAY, Ph.G., Acting Dean and Secretary

<sup>\*</sup>On leave, Feb. 1, 1912, to Feb. 1, 1913.

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JAMES HERBERT KELLEY, A.M., Executive Clerk

EDWARD JOSEPH FILBEY, Ph.D., Private Secretary to the President

OFFICE OF THE COMPTROLLER

\_\_\_\_. Comptroller

NATHANIEL HAY, Purchasing Agent

OREN ELMER STAPLES, Chief Clerk

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HARRISON EDWARD CUNNINGHAM, A.B., Assistant Registrar

LEVI AUGUSTUS BOICE, Recorder

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<sup>\*</sup>Second Semester, 1912-13.

EARLE HORACE WARNER, A.B., Assistant in Physics JOHN JONATHAN YOKE, Assistant in Animal Husbandry JAMES VAIL STEVENSON, A.B., Assistant in Agricultural Extension CHARLES LESLIE STEWART. A.M., Research Assistant in Economics BERT STOVER DAVISSON, A.B., Assistant in Chemistry ERNEST CARROLL FAUST. A.B., Research Assistant in Zoölogy JOSEPH CULPEPPER PENDLETON, Assistant in Foundry EMERSON GRANT SUTCLIFFE, A.B., Assistant in English Bronson Barlow, B.S., Assistant in Bacteriology ERNST KESSLER. Assistant in Glass Blowing RUTH SARAH ATWELL, B.S., Assistant in Botany RAYMOND ADAMS DUTCHER, A.M., M.S., Assistant in Chemistry HENRY HARRISON BARTELLS. Research Assistant in Ceramics THOMAS GREGORY GOODWIN, A.B., Assistant in English WILLIAM FIRTH WELLS, B.S., Assistant in Municipal Dairying JOHN RICHARD WELLS, B.S., Assistant in Animal Husbandry PAUL JAY BATKIN, A.B., Assistant in English LEW R SARETT, A.B., Assistant in Public Speaking GRACE ESTHER STEVENS, A.B., Assistant in Household Science BRONISLAV ROMAN HONOVSKI, Ph.D., Assistant in Chemistry CATHERINE OAKS. A.B., B.L.S., Reviser in the Library School

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#### STUDENT ASSISTANTS

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JUANITA ELIZABETH DARRAH, Student Assistant in Chemistry
RAYMOND STARR DUNHAM, Student Assistant in Chemistry
EDWARD ANTON GLENZ, Student Assistant in Chemistry
JEROME FRANCIS KOHOUT, Student Assistant in Chemistry
EUGENE HENDRICKS LESLIE, Student Assistant in Chemistry
RUBY FRANCES MOORE, Student Assistant in Physical Training for
Women

ANTON PRASIL, Student Assistant in Chemistry
ERNEST ALBERT RICH, Student Assistant in Commercial Law
CARL WILLIAM JOHN SIEVERT, Student Assistant in Chemistry
GEORGE ERIC SIMPSON, Student Assistant in Chemistry
SCOTT CHAMPLIN TAYLOR, B.S., Student Assistant in Chemistry
HOWARD DEWITT VALENTINE, Student Assistant in Chemistry

#### ASSISTANTS IN MILITARY SCIENCE

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<sup>\*</sup>Resigned.

## THE UNIVERSITY LIBRARY

#### STAFF

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Francis Keese Wynkoop Drury, A.M., B.L.S., Assistant Librarian Sabra Elizabeth Stevens, A.B., General Assistant Myrtle Renz, B.L.S., General Assistant Eleanor G Karsten, Ph.B., Secretary

#### Order Department-

Jacob Hodnefield, A.M., Exchange Assistant Aurella Knapp, A.B., B.L.S., Order Assistant (Periodicals) Nellie Mabel Robertson, A.B., Order Assistant (Gifts) Clara Agnes Ricketts, A.B., Order Assistant (Purchases)

#### Loan Department-

EMMA REED JUTTON, B.L.S., Loan Librarian
FRANCES MARGARET FEIND, A.B., B.L.S., Loan Assistant
SARAH ELIZABETH BRYAN, A.M., B.L.S., Loan Assistant
INA MAY BROWN, Loan Assistant
VIOLA FRASER, A.B., Loan Assistant
BERTRAM SMITH, Ph.B., Shelf Assistant
LEROY PRICKETT, Shelf Assistant

#### Binding Department-

Josie Batcheller Houchens, A.M., B.L.S., Binding Librarian

#### Catalog Department-

PHILIP SANFORD GOULDING, A.B., Catalog Librarian Adah Patton, B.L.S., Classifier Antoinette Helen Goetz, A.B., Catalog Assistant Edith Emigh, Catalog Assistant Mary Torrance, A.B., Catalog Assistant Lila Alexander, Catalog Assistant Fannie Dunlap, Ph.B., Catalog Assistant \*Flora Case, A.B., Catalog Assistant

<sup>\*</sup>Resigned, Dec. 31, 1912.

#### Departmental Libraries-

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MARGARET LUCY KINGSBURY, A.B., Assistant in History and Political Science

JENNIE ADAH CRAIG, A.B., B.L.S., Assistant in English
FLORENCE RISING CURTIS, A.B., B.L.S., Assistant in Library School
MARGARET HERDMAN, A.B., Assistant in Philosophy, Psychology,
and Education

CHARLES EDWIN JANVRIN, Ph.B., B.L.S., Assistant in Natural History

WINIFRED FEHRENKAMP, B.L.S., Assistant in Architecture

#### Reference Department-

FRANCES SIMPSON, M.L., B.L.S., Reference Librarian ALICE SARAH JOHNSON, B.L.S., Reference Assistant EMMA FELSENTHAL, Ph.B., B.L.S., Reference Assistant

# THE SCHOOL OF PHARMACY

(MICHIGAN BOULEVARD AND TWELFTH STREET, CHICAGO)

#### **FACULTY**

EDMUND JANES JAMES, Ph.D., LL.D., President
WILLIAM BAKER DAY, Ph.G., Acting Dean, Secretary, and Professor
of Histological Botany

FREDERICK MARION GOODMAN, Ph.G., Professor of Materia Medica and Botany

ALBERT HENRY CLARK, Ph.G., Assistant Professor of Chemistry CLYDE MASON SNOW, Ph.G., Assistant Professor of Pharmacy Bernard Fantus, M.D., Lecturer on Physiology Edmund Norris Gathercoal, Ph.G., Instructor in Pharmacognosy Henry William Colson, Ph.C., Assistant in Chemistry Ben Lee Eicher, Ph.C., Assistant in Pharmacy

# STANDING COMMITTEES OF THE FACULTY

#### COMMITTEES OF THE SENATE

Committee on Library—Professor Daniels, chairman; Professor Blair, Professor Carman, Professor Goebel, Professor Sherman, Mr. Windsor, Assistant Professor Washburn.

Committee on Educational Policy—Professor Forbes, chairman; Professor Mumford, Professor Noyes, Professor Berg, Professor Ford, Dean Kinley (ex officio).

Committee on Athletics—Professor Parr, chairman; Professor Goodenough, Dean Clark, Professor White, Major Morse.

#### COMMITTEES OF THE COUNCIL OF ADMINISTRATION

Committee on Attendance for Men—Professor Pease, chairman; Assistant Dean Warnock, Mr. Noerenberg, Dr. Börger, Assistant Professor Coffey.

Committee on Attendance for Women—Assistant Professor Goldthwaite, chairman; Acting Dean Fawcett (secretary), Assistant Professor Simpson.

Committee on Discipline for Men—Dean Clark, chairman (ex officio); Professor Barton, Professor Richards, Assistant Professor Rankin, Professor Decker, Dr. Lytle.

Committee on Discipline for Women—Acting Dean Fawcett, chairman (ex officio); Miss Blaisdell, Miss Jones.

Committee on Student Organizations and Activities—Assistant Professor Watson, chairman; Dean Clark, Acting Dean Fawcett, Professor Lloyd, Assistant Professor Schwartz.

Committee on Student Publications—Assistant Professor Scott, chairman; Professor L. H. Smith, Assistant Professor Dufour.

Auditing Committee for Student Organizations and Publications—Assistant Dean Warnock, chairman; Assistant Professor Paul, Mr. Noerenberg.

Committee on Students' Progress—Dean Clark, chairman; Acting Dean Fawcett, Assistant Dean Meyer, Associate Professor Rietz, Assistant Dean Miller, Assistant Professor Rankin, Professor Vernier.

Loan Fund Committee—Dean Clark, chairman; Assistant Dean Meyer, Assistant Dean Miller.

Committee on the Hospital Association—Dean Clark, chairman; Acting Dean Fawcett, Assistant Dean Miller.

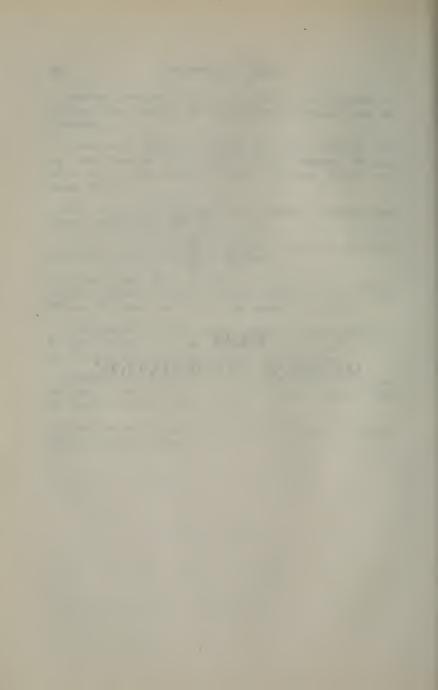
Committee on Transfer of Credits—Professor Pettit, chairman; Assistant Professor Hollister, Assistant Professor Leutwiler, Dr. Seymour, Dr. Crathorne, Mr. McConn, secretary (ex officio).

Committee on Accredited Schools—Professor Bagley, chairman; Assistant Professor Hollister, Associate Professor Bayley, Assistant Professor Paul, Assistant Dean Miller, Mr. McConn.

Committee on Appointment of Graduates—Professor Bagley, chairman; Assistant Professor Hollister, Associate Professor Larson, Associate Professor Frank Smith.

Committee on Catalog-Professor Ward, chairman; Professor Carman, Professor Alden.

# PART I GENERAL INFORMATION



### LOCATION

The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 128 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies just within the corporate limits of the city of Urbana and is bounded on the west by the city of Champaign. These two municipalities, locally known as the "Twin Cities", form in fact one community of about twenty-four thousand inhabitants. The city halls of the two towns are about two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are, therefore, equally available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana post-office maintains a sub-station at the University, located in the Library Building.

#### URBANA-CHAMPAIGN

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

Both cities are well paved, well drained, and provided with good water supply. In matters pertaining to health, conditions are excellent. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense.

The University has no dormitories, but the number of boarding houses is large, and there are forty-two residence halls erected by fraternities, sororities, and local clubs. The material needs of the student body are, therefore, provided for.

The moral and religious conditions of the University community are favorable to the welfare of the students. There are thirty churches, representing eleven denominations, and a number of students' religious associations, leagues, and guilds, including strong Young Men's and Young Women's Christian Associations.

Under the State local option law, the liquor traffic has been barred from both cities.

#### RAILWAY CONNECTIONS

The University is connected with neighboring cities in Illinois, including Danville, Bloomington, Decatur, Springfield, and Peoria, and also with St. Louis, by the electric interurban lines of the Illinois Traction System. It will shortly be connected by other interurban lines with Kankakee and Chicago.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad (time from Chicago by express trains, three hours and ten minutes), being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria & Eastern Division of the "Big Four" Route (Cleveland, Cincinnati, Chicago, and St. Louis Railway), as well as by the division of the Wabash Railway which connects Kansas City and St. Louis with Detroit and Buffalo. It is also reached from the west by the Havana branch of the Illinois Central Railroad and from Decatur by another branch of the same system.

The time from New York by way of the Wabash and "Big Four" routes is twenty-six hours, by way of Chicago and the Illinois Central, twenty-four hours. Washington and Philadelphia are about equally distant in time. Pittsburg, Buffalo, Kansas City, and Omaha may be reached in fifteen, fourteen, thirteen, and seventeen hours respectively.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. These several stations are each a little more than a mile distant from the University campus. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley in Champaign and the Columbian in Urbana being the largest.

# HISTORY

#### 1862. The Morrill Land Grant

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, \* \* \* in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$610,000 and deferred payments on land contracts amounting approximately to \$35,000.

#### Location chosen

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

#### 1867. Incorporation

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, ex officio members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an ex officio member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)

#### 1868. The University opened

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and three professors. During the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

#### 1868-9. The first laboratories

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.

#### 1870. Pioneer shop instruction

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the first shop instruction given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

#### 1870. Women admitted

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

#### 1873. First reorganization of the Board of Trustees

At this time the number of members was reduced from thirty-one (see 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, ex officio, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)

#### 1877. Authority to confer degrees received

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislature gave the University authority to confer degrees and issue diplomas.

#### 1885. Change of name

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University* of *Illinois*.

1885. The State Laboratory of Natural History transferred to the University

See page 429.

#### 1887. Second reorganization of the Board of Trustees

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an *ex officio* member. There are now, therefore, three *ex officio* and nine elective members. (For the previous organization of the Board see 1867 and 1873 above.)

1887. The Agricultural Experiment Station established at the University

See page 423.

#### 1890. Additional Federal endowment

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this enactment each such college or university received the first year \$15,000, the second year, \$16,000, and in each succeeding year a sum larger by \$1,000 than the amount of the preceding year, until the amount reached \$25,000; this sum was to be paid yearly thereafter.

#### 1892. The Graduate School

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

#### 1894. The Summer Session

The first Summer Session of the University was authorized by a vote of the Trustees on March 13, 1894, and was opened in June of that year.

#### 1896. The School of Pharmacy

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois. Its building is located at Michigan Boulevard and Twelfth Street, Chicago.

1897. The College of Medicine

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912.)

1897. The School of Music

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

1897. The State Water Survey authorized See page 431.

1897. The Library School

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University; the Director of that school was appointed Librarian of the University Library; and the Library School was opened.

1897. The College of Law

Pursuant to an action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to College of Law.

1899. The State Entomologist's Office permanently established at the University

See page 430.

1900. Courses in Business Administration

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accord-

ance with that action, the Trustees approved the organization of the Courses in Business Administration.

1901. The College of Dentistry

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to College of Dentistry on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912).

1903. The Board of Examiners in Accountancy created See page 434.

1903. The Engineering Experiment Station established See page 427.

1905. The School of Education

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

1905. The State Geological Survey established See page 432.

1906-7. The School of Railway Engineering and Administration

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration.

1906-7. The Graduate School organized as a separate faculty

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

1909. A Mine Rescue Station established at the University See page 435.

1911. The Mill Tax

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State shall be set apart as a fund for the maintenance of the University.

1912. The Colleges of Medicine and Dentistry discontinued
The Colleges of Medicine and Dentistry were discontinued on
June 30, 1912.

# **EQUIPMENT**

#### BUILDINGS AND GROUNDS

The land occupied by the University and its several departments embraces 225 acres, besides a farm of 480 acres. There are at the present time some forty-five buildings on the campus.

#### LITERATURE AND ARTS GROUP

University Hall (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

Lincoln Hall (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. This building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archæology, and the Museum of European Culture.

The Commerce Building (erected 1912) is a fire-proof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet and is to house the work in business administration with its various class rooms, offices, and laboratories. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak throughout.

#### GENERAL SCIENCE GROUP

Natural History Hall (old part erected 1892; addition 1909) is the largest building on the campus, covering a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoölogy, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the State Natural History Survey, and the office of the State Entomologist. A fireproof museum 51 feet by 63 feet in size, equipped

with fireproof and dustproof cases, occupies the center of the building.

The Laboratory of Physics (erected 1909) is a three-story fire-proof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings 125 feet. The large lecture room has a seating capacity of two hundred sixty-two. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing is of heavy construction and contains about 30 smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building.

The Chemical Laboratory (erected 1901-2) is a three-story building, the ground plan of which is shaped like the letter E. The extreme dimensions are 230 feet along the front and 116 feet along the wings. The middle rear wing contains the lecture amphitheater, which seats 350. The end wings contain the general laboratories. The central part of the building is occupied by offices, museum, class and seminar rooms, supply rooms, and a number of special rooms for research work. There is a basement, which contains the ventilating plant and rooms for assaying and metallurgy. In this building are located also the general office and laboratories of the State Water Survey.

The Astronomical Observatory (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter.

The Ceramics Laboratory (erected 1910) is a two-story brick building in which are provided a general laboratory, plaster room, pottery room, rough grinding room, machine room, drawing room, library, recitation rooms, chemical laboratory, and office. (See also the Mining and Ceramics Laboratory under "Engineering Group" below.)

The Entomology Building is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. In the main building is an office for the Entomologist, a stenographer's room, an insectary head room, the office of horticultural inspection, and a large fire-proof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

#### ENGINEERING GROUP

Engineering Hall (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a floor area of 47,000 square feet. The first and second floors are occupied by the offices, the recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the Dean of the College of Engineering and Director of the Engineering Experiment Station and by the office, recitation, and drafting rooms of the department of mechanical engineering. A portion of the third floor and all of the fourth floor is occupied by the department of architecture.

The Electrical Engineering Laboratory (erected 1898) is a twostory brick building with floor area of 18,000 square feet. The basement contains the departmental shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

The Mechanical Engineering Laboratory (erected 1905) is a brick building with a frontage of 120 feet, a total depth of 182 feet, and a floor area of 24,000 square feet. The front section is two stories high, and contains offices, lecture and computation rooms, and an instrument room. Back of this are three bays. The middle bay is provided with a concrete testing floor and a 10-ton three-motor traveling crane of 38-foot span. The north bay contains a 5-ton traveling crane and is used for laboratory work in connection with the departments of civil and electrical engineering and theoretical and applied mechanics.

The Laboratory of Applied Mechanics (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing contains the hydraulics laboratory.

The Mining and Ceramics Laboratory (erected 1912) is a onestory building with a floor area of 11,200 square feet. It contains a kiln room for the department of ceramics having an area of 4,300 square feet, a mining engineering laboratory of 3,600 feet area, and a chemical laboratory for the department of mining engineering. There are also offices and class rooms for the department of ceramics and a Mine Rescue Station equipped with Yeager helmets and arranged for training men in the methods of mine rescue work.

The Locomotive Testing Laboratory (erected 1912) is a fireproof building with brick walls 117 feet long and 42 feet wide, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass through a "transite" (or asbestos board) duct to a large fan which forces them through a reinforced concrete cinder separator; the separator removes the cinders and discharges them into the air through a brick stack eight feet in height.

The Transportation Building (erected 1912) is a three-story fire-proof building of brick trimmed with stone. The general dimensions of the building are 65x189 feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor is occupied by the department of general engineering drawing.

The Metal Shops (erected 1902) occupy a one-story brick building, with a floor area of 12,000 square feet, containing a lecture room, two office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a 20 horse-power electric motor. A three-ton traveling crane of 12-foot span covers the center of the floor for the entire length.

The Wood Shop (erected 1901-2) and the Foundry (added 1904) occupy a brick building which has a floor area of 16,000 square feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures, exhibition purposes, etc. The part devoted to the foundry has a molding floor, 35x80 feet, traversed by a 5-ton traveling crane, and a basement room for the storage of materials.

#### AGRICULTURAL GROUP

The Agricultural Building (erected 1900) consists of four separate structures, built around a court and connected by corridors. The main building, three stories in height, contains offices, class

rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, horticulture, and veterinary science; the chemical laboratory of the Experiment Station; administration rooms; and an assembly room (Morrow Hall) with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for veterinary science and stock judging. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres. An adjacent glass structure serves the departments of agronomy and horticulture. There are, in addition to these buildings, three dwellings, three barns, and a greenhouse.

The Agronomy Building (erected 1904-5) is 50 by 100 feet in size, of brick and slate, trimmed with stone. It contains a field laboratory for crop work in which yields of experimental plats are studied, sample seeds stored, and specimens preserved.

The Farm Mechanics Building (erected 1906-7) is a three-story brick structure containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of \$16,000 worth of farm machinery loaned the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

The Animal Husbandry Cattle Feeding Plant has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining. A storage barn 44 by 72 feet and an experimental silo complete the experimental cattle feeding plant.

The Beef Cattle Building (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and the large South Farm barn.

The Experimental Dairy Barns (erected 1912) comprise a round barn 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are of frame construction on brick walls with solid floors

of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height and contains office, shop, coal room, dairy room, and four sleeping rooms for employes.

The Horticultural Building (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests and contains sorting rooms, cold storage, and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

The Floricultural Greenhouses (erected 1908) comprise a plant consisting of four glass houses, each 105 by 28 feet, and a service building 26 by 103 feet. Three of the houses are used for experimental work in floriculture, while the fourth is devoted principally to the growing of material for class work in floriculture and plant propagation.

The Horticultural Greenhouse Group (under construction 1912) includes (1) a vegetable and plant breeding group and (2) a floricultural group.

The vegetable and plant breeding group consists of a glass house for vegetable growing 29x105 feet, two houses for plant breeding, one 29x79 feet and one 30x80 feet, a wire house for plant breeding 30x80, and a two-story and basement service building 82 feet 6 inches by 36 feet, containing laboratories, work rooms, class rooms and offices, and storage pit.

The Floriculture Group consists of glass growing houses 332 by 35 feet, a palm house 80 by 40 feet, and a two-story and basement service building 93 feet 3 inches by 37 feet 3 inches, containing class rooms, work rooms, offices, anl laboratories.

The glass houses for both groups represent the best type of modern greenhouse construction; the service buildings are of hollow tile and cement construction.

#### LAW BUILDING

The Law Building (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room.

#### BUILDINGS FOR GENERAL UNIVERSITY USE

The Library Building (erected 1896-7) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 113 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station Postoffice. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian and assistant librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University-Literature and Arts, Science, Agriculture, and Engineering.

The Auditorium (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200 and a memorial vestibule. All general University exercises, including convocations and the commencement gatherings, are held in this building.

The Men's Gymnasium (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains, also, the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one large room, which is fitted up with all the modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, which is properly banked on the turns to secure the greatest speed and comfort in running.

The Armory (erected 1889-90) has a clear floor space of 15,000 square feet in one hall. It is equipped with racks for 1,200 stands of arms. An annex provides for two pieces of field artillery.

The New Armory (under construction 1912) comprises a drill room with a clear area 200x340 feet and a height of 90 feet at the center, the roof being carried by fourteen three-hinged steel arches.

The sides are of hollow tile and the ends of timber construction. Provision is made for the extension of the building to 400 feet in length to allow maneuvering of the cadet regiment by battalions, and for the addition of three-story portions along the sides of the building to contain company rooms, locker rooms, and shooting tubes.

The Woman's Building (erected 1905) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the woman's gymnasium. On the lower floor there are a swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students. The addition to the Womans' Building (erected 1012) is a three-story fireproof building with basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonade with towers on the front and two smaller colonades on the north and south of the inner court. The addition is similar to the old building in finish and supplements the working space of the departments using it. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second floor. There are also offices for the Dean of Women and the Director of the Courses in Household Science, laboratories, social rooms, and space for the expansion of gymnasium work.

#### THE PRESIDENT'S HOUSE

The President's House (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

#### SERVICE BUILDINGS

The Central Heat and Power Plant (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horse-power. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horse-power. These two stations furnish steam for heating and power to all buildings on the campus. A power plant containing a 250-kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and

generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe-lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick tunnels. Altogether there are now 4,425 feet of tunnels for such purposes. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

The Pumping Station of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8-inch wells, 145 feet deep, and one 12-inch well, 148 feet deep, supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

#### LABORATORIES

Twenty-six departments of the University are equipped with laboratories. The following list shows the buildings in which these are located:

#### GENERAL SCIENCE LABORATORIES

Botany—Natural History Hall
Ceramics—Ceramics Laboratory
Chemistry—Chemical Laboratory
Entomology—Natural History Hall
Geology—Natural History Hall
Physics—Laboratory of Physics
Physiology—Natural History Hall
Psychology—University Hall
Zoölogy—Natural History Hall

#### ENGINEERING LABORATORIES

Cement—Mechanical Engineering Laboratory
Electrical engineering—Electrical Engineering Laboratory
Founding—Wood Shop
Forging—Metal Shops
Hydraulics—Laboratory of Applied Mechanics
Locomotive—Locomotive Laboratory

Machine Construction—Metal Shops
Materials testing—Laboratory of Applied Mechanics
Mechanical engineering—Mechanical Engineering Laboratory
Mining—Mining Engineering Laboratory
Roads—Mechanical Engineering Laboratory
Wood Working—Wood Shop

#### SPECIAL RESEARCH LABORATORIES

Agricultural Experiment Station—
Bacteriological laboratory
Chemical laboratory
Physical laboratory
Geological department—
Laboratory of economic geology

Laboratory of economic geology State Entomologist's Office State Laboratory of Natural History— State Water Survey—

Laboratory for sanitary water analysis

Agricultural Building

Natural History Hall

Natural History Hall Natural History Hall Chemical Laboratory

### MUSEUMS AND COLLECTIONS

#### COLLEGE OF LITERATURE AND ARTS

Art.—A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the auditorium foyer. Numerous pieces of this collection are now in the studios of the department of art and design in University Hall, and others are used to decorate the corridors and class rooms of University Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish, Spanish, and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

Classical Archaeology and Art.—This museum is located in Room 402 Lincoln Hall, and contains casts of important works of Greek and Roman sculpture; miscellaneous originals and models of Egyptian, Greek, and Roman antiquities; and over 1,100 mounted photographs of historic sites and archaeological remains in Greece,

Italy, and other parts of the ancient world. Over 1,100 slides belonging to the department of the classics are also available for illustrative purposes. The museum is open at regularly announced hours under the care of a custodian.

Commerce.—For its courses in industrial economics and commerce the University has a working collection of the materials of commerce; a lantern and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating various phases of commerce and industry. Most of the articles constituting the commercial museum are the gift of the Philadelphia Commercial Museum.

Education.—In the rooms of the department of education in University Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a representative collection of

apparatus for the school laboratory.

European Culture.—The Museum of European Culture is in the north wing of Lincoln Hall. The collection consists of casts of Romanesque, Gothic, and Renaissance art, models of early weapons and armor, facsimiles of miniatures and types of writing from medieval manuscripts, replicas of seals, reproductions of runic inscriptions, of early ivory carving, of musical instruments, etc. The purpose of the museum is to collect material to illustrate the history of European culture.

#### COLLEGE OF SCIENCE

Botany.—The herbarium contains about 65,000 mounted specimens of plants. The flora of North America are fairly well represented; the collection of species of flowering plants indigenous to Illinois is practically complete; and a collection of foreign species has been made. The collection of fungi amounts to 32,000 named specimens, and includes a set of those most injurious to other plants, causing rusts, moulds, etc.

Entomology.—The entomology collections of the University include an elementary reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, donated to the University by the executors of the estate of the late Andreas Bolter, of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which

contain 312,000 pinned insects and 22,216 vials and bottles of specimens in alcohol, mainly from Illinois.

Geology.—The geology collections are to be found in the Natural History Building. Lithology is represented by type collections of rocks aggregating 9,000 specimens; 1,000 thin sections of rocks and minerals; ornamental building stones; a stratigraphic collection to illustrate Illinois geology; a collection of Illinois soils (104), and one of polished marbles, granites, and other ornamental stones. The mineralogy collection is rich in rock-forming minerals, ores, and materials of economic value. It contains over 12,000 specimens: 575 crystal models; and a collection of gems and precious stones. The paleontology collection (49,000 specimens) contains representative fossils from the entire geologic series, but is especially rich in paleozoic forms. It embraces the private collections of A. H. Worthen (including 742 type specimens); Tyler and McWhorter; Hertzer; the greater part of the collections made by the Geological Survey of the state under Worthen; 200 thin sections of corals and bryozoa; the Ward collection of casts; and special collections representing the fauna and flora of particular groups.

Zoölogy.—The zoölogy collections have been specially selected and prepared to illustrate the courses of study in zoölogy and to present a synoptical view of the zoölogy of the State. Most of them are placed in the new museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons.

The collection of mounted birds includes representatives of all the orders and families of North America, together with a number of characteristic tropical, Bornean, and New Zealand forms. The collection is practically complete for Illinois species. There is also a collection of the nests and eggs of Illinois birds.

The cold-blooded vertebrates are represented by a series of mounted skins of larger species, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups, alcoholic specimens; and casts. The alcoholics include series of the reptiles, amphibians, and fishes, the latter comprising about 300 species. The casts represent about seventy-five species, nearly all fishes.

The Mollusca are illustrated by alcoholic specimens of all classes and orders, and dissections showing the internal anatomy of typical forms. There are several thousand shells, belonging to more than 2,000 species. The collection of the Illinois aquatic species is nearly complete.

The lower invertebrates are represented by several hundred dried specimens and alcoholics, and by a series of Blaschka glass models.

The embryology of vertebrates and invertebrates is illustrated by several sets of Ziegler wax models and series of sections and other preparations.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

#### COLLEGE OF ENGINEERING

Architecture.—The architecture collections include plaster casts of architectural detail and ornament; 9,400 lantern slides of architectural subjects and 900 slides of painting and sculpture; 20,000 classified plates, photographs, and 2,400 stereoscopic views; a working library of about 1,800 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and collections of architectural drawings and of specimens of building materials, fittings, and appliances.

Civil Engineering.—The civil engineering department has samples of iron, steel, wood, brick, and stone; materials for roads and pavements; models of arches and trusses. The department also possesses a collection of photographs and blue-print working drawings of bridges, metal skeleton buildings, masonry structures, standard railroad construction, etc.

Electrical Engineering.—This department has a collection of samples illustrating standard practice in the industrial applications of electricity. There is also a growing collection of lantern slides, photographs, blue-prints, drawings, pamphlets, and other engineering data.

Mechanical Engineering.—This department includes in its equipment part of a set of Reuleaux models; models of valve gears; sections of steam pumps; injectors; valves, skeleton steam and water gauges; standard packings; steam-pipe coverings; and drop forgings. There are also examples of castings, perforated metal, defective boiler plates, and set of drills, with samples of oil, iron, and steel. A number of working drawings from leading firms form a valuable addition to these collections.

Mining Engineering.—This department has a complete exhibit

of sized coal as prepared by typical Illinois washeries, the raw materials and the finished products illustrating the briquetting of coal, models of a metalliferous mine and of timber and steel mine supports, a complete exhibit of explosive and blasting materials and appliances, the Draeger, Fleuss, and Westphalia breathing apparatus, and all of the appliances necessary for mine rescue and first aid demonstration, a collection of safety-lamps and other mine-lighting devices, and working drawings and photographs of mine machinery.

#### COLLEGE OF AGRICULTURE

The various agricultural departments maintain collections illustrative of their work; prominent among which are those showing typical specimens of standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of certain investigations, especially with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, pages 183 to 189.

#### LIBRARY SCHOOL

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of laborsaving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

#### LIBRARIES

## (For the Library Staff see page 40)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana. The library of the School of Pharmacy, numbering about 2,000 volumes, is in Chicago.

On October 1, 1912, the several libraries contained the following numbers of bound volumes and pamphlets:

	Volumes	Pamphlets
General library, including depart-		
mental collections	217,370	24,000
Pedagogical library	600	3,550
State Laboratory of Natural His-		
tory library		22,200
Pharmacy library	2,000	

The Library receives about 1,900 serial publications.

The Library is housed, for the most part, in the Library building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition graduate students have the use of the seminar libraries.

As a part of the Library are included several special collections: The University of Illinois collection, including printed material illustrating the history of the University: about 300 volumes. College Publications collection, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 4,900 volumes. Thesis collection, a complete file of the original copies of the theses presented for graduation from the University of Illinois; they are bound and filed by years: 1.800 volumes. The Dziatzko collection of Library Economy, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets. The Dittenberger collection of the Classics, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items. The Heyne collection, purchased by the University in 1909, the philological library of Professor Moritz Hevne, of the University of Göttingen: about 5,000 items, principally on German philology and literature. The Karsten collection, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. The Gröber collection, purchased in 1912, the entire library of the late Professor Gustav Gröber, of Strasburg: 6,300 titles, principally on the Romance languages.

Twenty-one seminar and departmental collections are maintained in various buildings on the campus, including the six seminars in Lincoln Hall; these are primarily reference collections for the use of graduate students and advanced undergraduate students in the departments using the respective buildings. The hours of opening and the regulations for the use of these collections usually differ somewhat from the regulations printed below.

Mason Library of Western History. The library of western history collected by Edward G. Mason, Esq., long president of the

Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

#### LIBRARY REGULATIONS

The General Library is primarily for free reference use. The privilege of drawing books is accorded to all officers of instruction and government, to all registered students, and to other accredited persons. Books not reserved for classes may be borrowed for home use for two weeks, and may be renewed for two weeks more if not specially restricted or called for. All books are subject to recall at any time when needed for university work.

General reference books, books reserved for classes, all general periodicals, and certain other groups of books are to be consulted in the reading rooms only. They may not be loaned from the Library except when the reading rooms are closed. They must then be returned by the time the Library next opens.

Books from the stack which are not returned on time are subject to a fine of two cents a day. Books from the reference, reserve, and periodical shelves, as well as some special collections, are subject to a fine of twenty-five cents a day if kept overtime. Books recalled for university work must be returned at once upon receipt of the notice. If not returned within two days after notice is mailed a fine of twenty-five cents a day is charged. All books lost or damaged must be replaced or paid for.

Hours of Opening. The General Library is open week days during the general sessions of the University, from 7:45 a.m. to 10 p.m., and on Sundays from 2 p.m. to 6 p.m. During the Summer Session, the Library is open from 7:45 a.m. to 10 p.m. on week days, but is not open on Sundays. During the summer vacation, the Library is open from 9 a.m. to 12 m. Permits may be given for use at other hours. The Library is regularly closed on New Year's, Independence, Labor, Thanksgiving, and Christmas days.

## **ADMINISTRATION**

### GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members ex officio. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage or by rule of the Senate and cannot be conveniently laid over till the next meeting of the Senate, the Council may act upon the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

The Dean of Men and the Dean of Women act as advisers to undergraduate students and are charged with the general care of the conduct of these students.

#### DEPARTMENTS AND COURSES

For the purpose of administration, the University is divided into several colleges and schools. These are not educationally separate, but are interdependent, and form a single unit.

The colleges and schools are as follows:

- I. The College of Literature and Arts
- II. The College of Science
- III. The College of Engineering
- IV. The College of AgricultureV. The Graduate School
- VI. The Library School
- VII. The School of Music
- VIII. The School of Education
  - IX. The School of Railway Engineering and Administration
    - X. The College of Law
  - XI. The School of Pharmacy

## The College of Literature and Arts offers courses in-

- I. Philosophy and arts, including-
  - (a) The ancient classical languages
  - The Romance languages (b)
  - The Germanic languages (c)
  - The English language and literature, including (d) rhetoric
  - Mathematics (e)
  - The political and social sciences— (f)

History

Economics

Accountancy

Political science

Sociology

Philosophical subjects-(g)

Philosophy

Psychology

- Education
- Art (h)
- Household science

By the grouping of certain elective subjects students in this College are also offered opportunities for specific vocational training as follows:

- 2. Business Administration-
  - (a) General business
  - (b) Banking
  - (c) Accountancy
  - (d) Railway administration—
    Railway traffic and accountancy
    Railway transportation
  - (e) Insurance
- 3. Journalism
- 4. Household science and administration
- 5. Preliminary to law

## The College of Science offers courses in-

- 1. General science, affording opportunity to specialize in :
  - (a) Astronomy
  - (b) Botany
  - (c) Chemistry
  - (d) Education
  - (e) Entomology
  - (f) Geology, including mineralogy
  - (g) Household science
  - (h) Library science
  - (i) Mathematics
  - (j) Physics
  - (k) Physiology
  - (1) Psychology
  - (m) Zoölogy
- 2. Chemistry
- 3. Chemical engineering
- 4. Ceramics
- 5. Ceramic engineering
- 6. Household science
- 7. Preparation for medicine
- 8. Science and engineering (combined course)

## The College of Engineering offers courses in-

- I. Architecture
  - 2. Architectural engineering
  - 3. Civil engineering

- 4. Electrical engineering
- 5. Mechanical engineering
- 6. Mining engineering
- 7. Municipal and sanitary engineering
  - 8. Railway civil engineering
  - 9. Railway electrical engineering
- 10. Railway mechanical engineering

## The College of Agriculture offers courses in-

- I. Agronomy
- 2. Horticulture, floriculture, and landscape gardening
- 3. Animal husbandry
  - 4. Dairy husbandry
- 5. Veterinary science
- 6. Household science
- 7. Agricultural extension
  - 8. Teachers' course

Military science and physical training are provided in all the schools and colleges in Urbana.

The Graduate School offers courses in-

Philology, including the classical languages, Romance languages, Germanic languages, and English

Mathematics

Political and social sciences, including history, economics, sociology, and political science

Philosophy, including psychology and education

Physical sciences, including physics, chemistry, astronomy, and geology

Biology, including botany, zoology, entomology, and physiology Engineering, including architecture, architectural engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering

Agriculture, including agronomy, animal husbandry, dairy husbandry, floriculture, horticulture, and thremmatology

Household science

The Library School offers a professional course of two years in preparation for the work of the librarian, leading to the degree of Bachelor of Library Science. Graduation from a college or university of approved standing is required for admission to the Library School.

The School of Music offers courses in vocal and instrumental music, leading to the degree of Bachelor of Music; and provides training in public school methods in music.

The School of Education enrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

The School of Railway Engineering and Administration offers courses of study leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also courses in railway transportation and in railway traffic and accountancy leading to the degree of Bachelor of Arts.

The Courses in Business Administration virtually constitute a school of commerce. They include courses in social and industrial economics, consular service, accountancy, banking, and railway administration, leading to the degree of Bachelor of Arts.

The College of Law offers a course of three years leading to the degree of Bachelor of Law. One year of college work in an institution of approved standing is required for admission to the College of Law.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.).

The School of Pharmacy offers courses in the branches necessary to a scientific and practical knowledge of pharmacy, including pharmacy, chemistry, materia medica, botany, physics, and physiology. The courses lead to the degrees of Graduate in Pharmacy and Pharmaceutical Chemist.

The Summer Session, of eight weeks, offered in 1912 courses in accountancy, agricultural education, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, Latin, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technique, philosophy, physical geography, physical training for men and for women, physics, political science, psychology, rhetoric, sociology, Spanish, and zoölogy.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

## **ADMISSION**

#### GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least 16 years of age. Candidates for admission to the School of Pharmacy (Chicago) must be 17 years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1913, September 22) or at the beginning of the spring semester (in 1914, February 9) Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the undergraduate departments, including the colleges of Literature and Arts, Science, Engineering, and Agriculture, and the School of Music, amounting in each case to 15 units of high school work, are stated in detail immediately below.

The College of Law requires, in addition to 15 units of high school credit, one year of college work in arts, letters, and science in an institution having standards equal to those of the University of Illinois. (See page 243.)

The Library School requires a bachelor's degree in arts, letters, or science from an institution having standards equal to those of the University of Illinois. (See page 208.)

The School of Pharmacy (Chicago) requires for admission to its shorter course, leading to the degree of Graduate in Pharmacy, one year of high school work or the full educational equivalent; and for admission to its longer course, leading to the degree of Pharmaceutical Chemist, graduation from an accredited high school or the equivalent. (See page 252.)

# ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

An applicant for admission to any one of the undergraduate departments—including the colleges of Literature and Arts, Science,

Engineering, and Agriculture, and the School of Music—must offer credit for fifteen (15) units of high school or other secondary school work, so chosen as to include:

- I. Those subjects prescribed alike by all the undergraduate departments (see List A below).
- II. Certain subjects prescribed in addition by the individual department which the student wishes to enter.
  - III. Enough electives to make up the required total of 15 units.

A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practice.

## I. UNITS PRESCRIBED BY ALL THE COLLEGES (LIST A)

Of the 15 units required, the following 5½ units, constituting List A, are prescribed for admission to the freshman class in all the undergraduate colleges of the University, and no substitutes are accepted.

## List A. Units Prescribed by All the Colleges

English composition		unit
English literature 2		units
Algebra I	1/2	units
Plane geometry		unit

Total, List A..... 5½ units

## II. Additional Prescriptions of Individual Colleges

Of the 9½ units that remain, certain others are prescribed for admission by individual colleges, and in each case no substitutes are accepted by the college in question. These additional prescriptions are as follows:

Units Prescribed in Addition by Individual Colleges

For the College of Literature and Arts:

History	•••••	I	unit
Foreign	languages <sup>1</sup>	3	units

<sup>&</sup>lt;sup>1</sup>At least two of these must be in the same language. Three units in Latin must be presented if the student wishes to pursue the study of that subject in the University.

For the Colleges of Science and Agriculture:
Science 2 units
For the College of Engineering:
Solid and spherical geometry <sup>1</sup> / <sub>2</sub> unit
Physics I unit
For the School of Music:
History I unit
Foreign languages <sup>2</sup> 3 units
Music 2 units

## III. ELECTIVES

The remainder of the required 15 units—after those prescribed (1) by all the colleges, and (2) by the individual college desired, have been counted—must be made up from the subjects in Lists B and C below. For the College of Literature and Arts, only two units from List C may be offered. For the Colleges of Science, Engineering, and Agriculture, three units from List C are accepted. No subject is accepted for an amount less than the minimum, or greater than the maximum, mentioned in the lists. For a description of the subjects required and accepted for admission see page 94.

## List B. Electives

Astronomy		1	8	weeks			1/2	unit
Botany	18	or g	36	weeks	1/2	or	I	unit
Chemistry		;	36	weeks			I	unit
Civics	18	or 3	36	weeks	1/2	or	I	unit
Commercial geography			8	weeks			1/2	unit
Drawing					I/2	or	I	unit
Economics			8	weeks			1/2	unit
English literature (3rd unit)		3	36	weeks			I	unit
French	36	to I	44	weeks	I	to	4	units
Geology	18 0	or 3	36	weeks	1/2	or	I	unit
Geometry, solid and spherical		1	8	weeks			1/2	unit
German	36	to I	14	weeks	I	to	4	units
Greek	36	to I	80	weeks	I	to	3	units
History	36	to I	80	weeks	I	to	3	units
Latin						to	4	units
Physics		3	36	weeks			I	unit
Physical geography	18 0	or 3	36	weeks	1/2	or	I	unit

<sup>&</sup>lt;sup>1</sup>Two years of German are prescribed (as well as two units in science) for admission to the course in *chemical engineering* in the College of Science.

<sup>2</sup>At least two of these units must be in the same language.

Physiology
Spanish36 to 72 weeks I to 2 units
Trigonometry18 weeks ½ unit
Zoölogy
List C.* Limited Electives
Agriculture36 to 72 weeks I to 2 units
Bookkeeping36 weeks I unit
Business law18 weeks ½ unit
Domestic science36 weeks I unit
Manual training†36 to 72 weeks 1 to 2 units
SUMMARY BY COLLEGES
The requirements listed above may be summarized by colleges as
follows:
For the College of Literature and Arts:
I. List A (prescribed by all the colleges) 5½ units
II. Special prescriptions by this college—
History I unit
Foreign languages (see foot-note, p. 76) 3 units
III. Electives (not more than 2 units from List C) 51/2 units
I5 units
For the Colleges of Science and Agriculture:
I. List A (prescribed by all the colleges) 5½ units
II. Special prescription by these colleges— Science‡
Science‡
111. Electives (not more than 3 times from List C) 772 times
15 units
For the College of Engineering:
I. List A (prescribed by all the colleges) 5½ units
II. Special prescriptions by this college—
Solid and spherical geometry
Physics 1 unit
III. Electives (not more than 3 units from List C) 8 units
— 15 units
15 units

<sup>\*</sup>The subjects named in List C must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.

†In giving credit for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the preserve despite and shop work. 

F	or the	School	of Music:						
	I.	List A	(prescribe	d by	a11	depar	tments	s)	

II.	Special prescriptions by this school—		
	History	I	unit
	Foreign languages (see foot-note, page 77)	3	
	Music	2	unite

III. Electives (not more than 3 units from List C).. 31/2 units

15 units

51/2 units

#### METHODS OF ADMISSION

The credits required for admission to the undergraduate departments, as detailed above, may be secured:

- (a) By examination.
- (b) By certificate from an accredited high school or other secondary school.
- (c) By transfer from another university or college of recognized standing.

## (A) ADMISSION BY EXAMINATION

## I. THE UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the fall semester; in January, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examinations cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on pages 94 to 103.

For programs of these three sets of examinations for 1913-1914, see pages 85, 86, and 87.

## II. THE COLLEGE ENTRANCE EXAMINATION BOARD EXAMINATIONS

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted for admission in any subject in the lists on pages 94 to 103, under the usual restrictions of the University governing amount of credit. These examinations will be held during the week of June 16-21, 1913.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River, also at Minneapolis, St. Louis, and other points on the Mississippi River, must be received by the Secretary of the Board at least two weeks in advance of the examinations; that is, on or before Monday, June 2, 1913; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the examinations; that is, on or before Monday, May 26, 1913; and applications for examination outside of the United States and Canada must be received at least five weeks in advance of the examinations; that is, on or before Monday, May 12, 1913.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only upon the payment of \$5.00 in addition to the usual fee.

The examination fee is \$5.00 for all candidates examined at points in the United States and Canada, and \$15.00 for all candidates examined outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1913, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

## III. THE NEW YORK RECENTS' EXAMINATIONS

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

## (B) ADMISSION BY CERTIFICATE FROM AN ACCRED-ITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University by certificate from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent in to the Registrar for approval as soon as

possible after the close of the high school year in June. Certificates received at the University after September 18 (in 1913) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

## ACCREDITED SCHOOLS

The High School Visitor of the University visits and inspects on request high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of Accredited Schools, correct to January 1, 1913, see page 88. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University.

Entrance credits will also be accepted on certificate from the following sources:

- From schools accredited by the North Central Association of Colleges and Secondary Schools.
- 2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
- 3. From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.
- 4. From schools approved by the New England College Entrance Certificate Board.

#### FOREIGN STUDENTS

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Adviser to Foreign Students, Room 214, Lincoln Hall.

#### EXAMINATION IN RHETORIC I

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric I may be excused from the first semester's work. An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1913, September 22). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

# (C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects prescribed for all colleges or by individual colleges as indicated above (pages 74-79).

For admission to advanced standing by transfer of college credits see page 84 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

#### CONDITIONED FRESHMEN

A student who lacks not more than 2 of the 15 units required for matriculation may be entered as a conditioned freshman, provided the deficiencies are not in work which should precede the prescribed courses of the first semester, and provided that all his entrance conditions are such as can be made up during his first year.

A conditioned student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No student having entrance conditions may register for a second year in the University, except on the recommendation of the faculty of the college or school in which he is enrolled, approved by the Council of Administration. Only in rare and especially meritorious cases will such permission to continue as a conditioned student be granted.

#### ADMISSION AS SPECIAL STUDENTS

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular colleges in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

## SPECIAL REQUIREMENTS OF PARTICULAR COLLEGES

The College of Literature and Arts requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

The College of Engineering requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

The College of Agriculture will receive, in the school year 1913-1914, non-matriculants twenty years old or over, provided that if deficient in English as measured by the requirements for matriculation they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture. Beginning in September, 1914, the age limit for special students in the College of Agriculture will be raised to twenty-one years.

The Library School requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work and showing honorable dismissal from the institution last attended. In order that action may be taken on such applications before registration they should be presented not later than one week before the beginning of the academic year.

It is the practice of this School to admit as special students only those mature persons who, though unable to meet the formal requirements for entrance, are substantially prepared for thorough and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the regular requirements for entrance, such as approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

#### ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

- I. By examination.—Advanced standing is granted only by examination unless the applicant is from an approved school.
- 2. By transfer of credits.—Credits may be accepted for advanced standing from another university or college of recognized standing, from a state normal school, or from an accredited high school (not more than the equivalent of one unit unless the high school course exceeded four years in length). An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied (except in cases of transfer from high schools) by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

## PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the

fall semester; in January, shortly before the opening of the spring semester; and in July, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 94 to 103.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 321 Natural History Building.

## SUMMER EXAMINATIONS, JUNE, JULY, 1913

*Zoology, ½ unit, or I unitSat.,	June	28,	8:00 a.m	a.
*Botany, ½ unit, or I unitSat.,	June	28,	10:00 a.m	1.
*Chemistry, I unitSat.,	June	28,	I:00 p.m	1.
†Physiology, 1/2 unit, or I unitSat.,				2.
English literature, 2 unitsSat.,	July	5,	8:00 a.m	n.
English composition, I unitSat.,	July	5,	10:30 a.m	n.
*Physics, I unitSat.,	July	5,	I:00 p.m	a.
†Physical geography, 1/2 unit, or I unitSat.,	July	5,	3:30 p.n	1.
Commercial geography, 1/2 unitSat.,	July	5,	3:30 p.n	1.
‡History, 1, 2, or 3 unitsSat.,	July	12,	8:00 a.m	n.
Civics, 1/2 unit, or I unit	July	12,	I:00 p.m	n.
Economics, ½ unitSat.,	July	12,	3:30 p.m	n.
Algebra, 11/2 unitsSat.,	July	19,	8:00 a.m	n.
Astronomy, ½ unitSat.,	July	19,	10:30 a.n	n.
Geology, ½ unit, or I unitSat.,	July	19,	10:30 a.n	n.
Plane geometry, I unitSat.,	July	19,	I:00 p.n	n.
Solid and spherical geometry, 1/2 unitSat.,				n.
Latin, 1, 2, 3, or 4 unitsSat.,	July	26,	8:00 a.n	n.
Bookkeeping, I unitSat.,	July	26,	10:30 a.n	n.
Trigonometry, ½ unitSat.,	July	26,	10:30 a.n	n.
German, 1, 2, 3, or 4 unitsSat.,	July	26,	I:00 p.n	n.
French, I, 2, 3, or 4 unitsSat.,	July	26,	I:00 p.n	n.
Spanish, I unit, or 2 units	July	26,	I:00 p.n	n.
Business law, 1/2 unit	July	26,	3:30 p.n	n.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, Greek, and the fourth unit in English, will be arranged with candidates.

<sup>\*</sup>Note-book required.

<sup>†</sup>Note-book required for 1 unit; not required for ½ unit.

Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, 1 unit, or 1 unit; American history, 1 unit, or 1 unit.

#### FALL EXAMINATIONS, SEPTEMBER, 1013

*Chemistry, I unit	.Mon.,	Sept.	15,	I :00	p.m.
Geology, 1/2 unit or I unit	.Mon.,	Sept.	15,	I :00	p.m.
Astronomy, 1/2 unit	.Mon.,	Sept.	15,	3:30	p.m.
Trigonometry, 1/2 unit	. Mon.,	Sept.	15,	3:30	p.m.
‡History, 1, 2, or 3 units	Tues.,	Sept.	16,	8:00	a.m.
English literature, 2 units	Tues.,	Sept.	16,	I :00	p.m.
English composition, I unit	Tues.,	Sept.	16,	3:30	p.m.
Latin, 1st unit, or 2nd unit, or both	.Wed.,	Sept.	17,	8:00	a.m.
*Physics, I unit	.Wed.,	Sept.	17,	8:00	a.m.
†Physical geography, ½unit or 1 unit	.Wed.,	Sept.	17,	10:30	a.m.
Algebra, 11/2 units	.Wed.,	Sept.	17,	I :00	p.m.
Civics, 1/2 unit or I unit	.Wed.,	Sept.	17,	3:30	p.m.
Economics, ½ unit	.Wed.,	Sept.	17,	3:30	p.m.
Geometry, plane, I unit	Thurs.,	Sept.	18,	8:00	a.m.
Geometry, solid and spherical, 1/2 unit	Thurs.,	Sept.	18,	10:30	a.m.
†Physiology, 1/2 unit or I unit	Thurs.,	Sept.	18,	10:30	a.m.
German, 1st unit, or 2nd unit, or both	Thurs.,	Sept.	18,	I :00	p.m.
German, 3rd unit, or 4th unit, or both	Thurs.,	Sept.	18,	3:30	p.m.
French, 1st unit, or 2nd unit, or both	Thurs.,	Sept.	18,	I :00	p.m.
French, 3rd unit, or 4th unit, or both		-		3:30	•
Spanish, 1st unit, or 2nd unit, or both		-			p.m.
Business law, ½ unit	,	_			p.m.
Commercial geography, ½ unit				3:30 8:00	_
Latin, 3rd unit, or 4th unit, or both  Bookkeeping, I unit		_		8:00	
*Botany, ½ unit or 1 unit		-	-	8:00	
*Zoology, ½ unit or I unit					

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, Greek, and the fourth unit in English, will be arranged with applicants.

<sup>\*</sup>Note-book required.
†Note-book required for 1 unit; not required for ½ unit.

<sup>†</sup>Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, ½ unit, or 1 unit; American history, ½ unit, or 1 unit.

### MID-YEAR EXAMINATIONS, JANUARY, 1914

*Chemistry, I unit	.Mon.,	Jan.	5,	8:00	a.m.
Geology, ½ unit or I unit	.Mon.,	Jan.	5,	8:00	a.m.
Astronomy, 1/2 unit	.Mon.,	Jan.	5,	10:30	a.m.
Trigonometry, 1/2 unit	.Mon.,	Jan.	5,	10:30	a.m.
‡History, 1, 2, or 3 units	.Mon.,	Jan.	5,	I:00	p.m.
English literature, 2 units	Sat.,	Jan.	10,	8:00	a.m.
English composition, I unit	Sat.,	Jan.	10,	10:30	a.m.
Latin, 1st unit, or 2nd unit, or both					
*Physics, I unit	Sat.,	Jan.	10,	I:00	p.m.
†Physical geography, 1/2 unit or 1 unit	Sat.,	Jan.	10,	3:30	p.m.
Algebra, 1½ units	Sat.,	Jan.	17,	8:00	a.m.
Civics, ½ unit or I unit	Sat.,	Jan.	17,	10:30	a.m.
Economics, ½ unit	Sat.,	Jan.	17,	10:30	a.m.
Geometry, plane, I unit	Sat.,	Jan.	17,	I:00	p.m.
Geometry, solid and spherical, 1/2 unit	Sat.,	Jan.	17,	3:30	p.m.
†Physiology, 1/2 unit or I unit	Sat.,	Jan.	17,	3:30	p.m.
German, 1st unit, or 2nd unit, or both	Sat.,	Jan.	24,	8:00	a.m.
German, 3rd unit, or 4th unit, or both	Sat.,	Jan.	24,	10:30	a.m.
French, 1st unit, or 2nd unit, or both	Sat.,	Jan.	24,	8:00	a.m.
French, 3rd unit, or 4th unit, or both	Sat.,	Jan.	24,	10:30	a.m.
Spanish, 1st unit, or 2nd unit, or both	Sat.,	Jan.	24,	8:00	a.m.
Business law, ½ unit	Sat.,	Jan.	24,	8:00	a.ın.
Commercial geography, ½ unit	Sat.,	Jan.	24,	10:30	a.m.
Latin, 3rd unit, or 4th unit, or both	Sat.	, Jan.	24	I :00	p.m.
Bookkeeping, I unit	Sat.,	Jan.	24,	I :00	p.m.
*Botany, ½ unit or I unit					
*Zoology, ½ unit or I unit	Sat.	Jan.	24,	3:30	p.m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, Greek, and the fourth unit in English, will be arranged with applicants.

<sup>\*</sup>Note-book required. †Note-book required for 1 unit; not required for ½ unit.

Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, 1 unit, or 1 unit; American history, 1 unit, or 1 unit.

#### LIST OF ACCREDITED SCHOOLS

## [Correct to January 1, 1913]

The following high schools, having all the *prescribed* units, and enough others to make up the *required total* of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.

The High School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address The High School Visitor, in care of the University of Illinois.

## FULLY ACCREDITED SCHOOLS

SCHOOL	SUPERINTENDENT	PRINCIPAL
ABINGDON	A. C. BUTLER	W. B. Rose
ALBION	LEWIS OGILVIE	LEE V. MATHENY
ALEDO	F. N. TAYLOR	
ALTAMONT	WILLIAM HARRIS	WILLIAM HARRIS
ALTON	R. A. HAIGHT	B. C. RICHARDSON
Амвоч	GEORGE W. BEATTIE	M. GRACE CAVINS
Anna	F. C. PROWDLEY	CHARLES McGINNIS
Arcola	SHELDON R. ALLEN	INA L. RABB
Arispie-Indiantown (Tiskila	va)	A. W. Hussey
Arlington Heights	A. E. HUBBARD	ELEANOR CROW
ASHLAND	JAMES G. NORRIS	HARRIET MORTON
Assumption Tp.		H. G. SPEAR
ASTORIA	9	BESSIE CONDAY
ATLANTA		IRA M. WRIGLEY
Atwood	ARTHUR W. NIEDERMEYER	O. W. ALLEN
AUBURN	CHAS. E. KUECHLER	
Augusta	C. B. WHITEHOUSE	A. E. DECKER
AUGUSTANA COLLEGE ACAD.		C. W. Foss
AURORA EAST	C. M. BARDWELL	C. E. LAWYER
AURORA WEST	C. E. Douglass	
AVERYVILLE (Peoria P. O.)		ERMA RELLER
BARRY	HENRY S. STICE	BERTHA WHITE

#### SCHOOL

BATAVIA RELLEVILLE BELLFLOWER TP.

BENTON TP. BIGGSVILLE TP.

BLOOMINGTON BLOOM Tr. (Chicago Heights)

BLUE ISLAND

BRADLEY POLY. INST. (Peoria) BRIDGEPORT TP.

RUSHNELL CAIRO CAMBRIDGE CAMP POINT CANTON CARLINVILLE CARLYLE

CARROLLTON CARTERVILLE

CARTHAGE COLLEGE ACADEMY

CENTRALIA TP. CHAMPAIGN CHARLESTON CHATSWORTH CHENOA

CHICAGO AUSTIN Bowen Calumet

CARL SCHURZ CRANE, R. T. (Tech.)

ENGLEWOOD HYDE PARK LAKE

LAKE VIEW LANE TECHNICAL McKinley MARSHALL

MEDILL TULEY

WALLER, ROBERT A. WENDELL PHILLIPS CHICAGO LATIN SCHOOL

CHILLICOTHE TP. CHRISMAN

CLAYTON

SUPERINTENDENT

H. A. BONE H. G. RUSSELL GEORGE H. BUSIEK

BELVIDERE EUGENE N. N. STEVENSON EUGENE D. MERRIMAN

J. K. STABLETON

J. E. LEMON

R. C. HIETT T. C. CLENDENEN H. M. HINKLE W. H. BREWSTER G. W. GALER H. AMBROSE PERRIN M. N. Topp

Toseph Gerschbacher E. A. DOOLITTLE R. G. CRISENBERRY CARTHAGE D. H. WELLS

CASEY W. G. THOMPSON CATLIN J. E. LUNG

W. W. EARNEST DEWITT ELWOOD L. C. SMITH A. B. HIETT S. E. REECHER ELLA FLAGG YOUNG

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EVANSTON ACADEMY		N. W. HELM
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Oregon	F. G. TAYLOR	
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PALESTINE	H. B. URBAN	R. A. FRALEY
PANA TP.	21. 27. 3.10.11.	W. E. Andrews
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STERLING TP.	Wat Zi Ecces	E. T. AUSTIN
STOCKLAND TP.		H. M. THRASHER
STOCKTON	MYRTLE RENWICK	PARKER NOLL
STONINGTON	G. E. LOWRY	GAIL REBMAN
STREATOR TP.		O. A. RAWLINS
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SYCAMORE	K. D. WALDO	GRACE M. EDWARDS
TAYLORVILLE TP.		R. G. BEALS
THORNTON TP. (Harvey)		L. W. SMITH
Toulon Tr.	J. T. Kirk	C. E. GRIFFITH
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St. Alban's School (Knoxville) Lucian F. Sennett

L. G. YENERICH

## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of subjects below.

AGRICULTURE.—Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.

- 2. ALGEBRA.—Fundamental operations, factoring, fractions, simple equations, involution, evolution, radicals, quadratic equations and equations reducible to the quadratic form, surds, theory of exponents, and the analysis and solution of problems involving these.
- 3. ASTRONOMY.—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.
- 4. BOOK-KEEPING.—The unit of work in book-keeping for college entrance should consist of a working knowledge for both single and double entry book-keeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in which the uses of the ordinary book-keeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.
- 5. Botany.—A familiar acquaintance with the general structure of plants, and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.
- 6. Business Law.—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's Elements of Commercial Law, Burdick's Business Law, and White's Elements of Commercial Law.
- 7. CHEMISTRY.—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as it is given in the best high chools in one year will satisfy the requirements of the University for the one unit for admission. The

laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.

- 8. CIVICS.—Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the usual high school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.
- 9. COMMERCIAL GEOGRAPHY.—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redways' Commercial Geography, Adam's smaller book on the same subject, the text-books of Brigham, or Robinson, or Trotter's work.
- 10. Domestic Science.—(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing, (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.
- 11. Drawing.—Free-hand or mechanical drawing, or both, Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.
- 12. Economics.—The principles of economics, with economic history, as given in any good elementary text-book.
- 13. ENGLISH COMPOSITION AND RHETORIC.—Correct spelling, capitalization, punctuation, paragraphing, idiom, and definition; the elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.
- 14. ENGLISH LITERATURE.—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from

which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.

I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Vergil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

II. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.

III. Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; either Scott's Ivanhoe or Quentin Durward; Hawthorne's House of Seven Gables; either Dickens's David Copperfield or Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.

IV. Bunyan's Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humorists; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden or selections from Huxley's Lay Sermons; Stevenson's Inland Voyage and Travels with a Donkey.

V. Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Village; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, Whittier's Snow Bound; Macaulay's Lays of Ancient

Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City.

- (b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.
- (c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1913 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's Macbeth; Milton's Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

The work outlined in (a), (b), and (c) counts for two units.

- (d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.
- 15. French.—First year's work.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read.

Second year's work.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read.

Third year's work.—Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics.

Fourth year's work.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

16. Geology.—The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott's Introduction to Geology, Brigham's Text-book of Geology, or an equivalent, together with at least an equal amount of time spent in

laboratory and field work. The laboratory work should follow one or more of the lines indicated below, and note-books should be presented showing the character and amount of work done. (a) Studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology. Each study should include a careful drawing of the object and a written description of the way in which it was produced. (b) Studies of well-marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type and state clearly the conditions under which it was formed. (c) Studies of minerals of economic value, including the characteristics of each, its origin, and the uses to which it is put. (d) Studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.

- 17. GEOMETRY.—(a) Plane Geometry. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.
- (b) Solid and Spherical Geometry. Applications to the solution of original exercises are emphasized.
- 18. German.—It is recommended that pupils be trained to understand spoken German and to reproduce freely in writing and orally what has been read. Whatever method of teaching is used, however, a thorough knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years, but the German department welcomes inquiries from teachers who wish further suggestions in the planning of courses.

First Year's Work.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may well be memorized. Elementary grammar should be mastered up to the subjunctive as arranged in most books for beginners. Easy prose composition rather than the writing of forms will be the test of this grammatical work in entrance examinations given by the University.

Second Year's Work.—Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself readily to conversational treatment in the class room. The regular recitations should afford constant oral and written drill on the elementary grammar of the previous year. In addition, the beginner's book should be completed, but more importance is attached to accuracy and facility in simple modes of expression than to a theoretical knowledge of advanced syntax.

Third Year's Work.—Most of the time should still be devoted to good modern prose. There should be some work in advanced prose composition—based on German models—and the daily recitations should continue to afford abundant oral practice. Pupils ought by this time to understand spoken German fairly well.

Fourth Year's Work.—At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty. He should also be able to express himself or ally or in writing with considerable readiness and a high degree of accuracy. It is recommended that work in composition take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

19. Greek.—First Year's Work.—The exercises in any of the beginning books, and one book of the Anabasis or its equivalent.

Second year's work.—Two additional books of the Anabasis and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year.

Third year's work.—Three additional books of the Iliad, three of the Odyssey, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

20. HISTORY.—One, two, or three units may be presented, to be chosen from the following list:

Ancient history to 800 A. D., one unit.

Medieval and modern history, one unit.

English history, one-half or one unit.

American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high school work.

21. LATIN.—First year's work.—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories.

Second year's work.—Four books of Cæsar's Gallic War, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text.

Third year's work.—Six orations of Cicero; the ability to write simple Latin based on the text; the simpler historical references and the fundamental facts of Latin syntax.

Fourth year's work.—Six books of Vergil, with history and mythology; the scansion of hexameter verse.

- 22. MANUAL TRAINING.—The requirement for one-half unit is the equivalent of 180 forty-minute periods in manual training following the syllabus prepared by the manual training section of the High School Conference.
- 23. Music.—Credit in music is not accepted on certificate, but only by examination at the University, and only for admission to the School of Music. In the examination for two units in biano, students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerny, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. In the examination for two units in voice, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelsshon. In the examination for two units in violin, students are required to play the following or the equivalent: Gordon's Fountain Studies; Hermann's Scale Studies: Wohlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel, Duet: selections from Weiss and Blumenstengel; miscellaneous pieces by Daucla, Papini, Weidig, Sitt, etc.
- 24. Physics.—One year's high school work covering the elements of physical science as presented in the best of the current high school text-books of physics. Laboratory practice in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.
- 25. Physical Geography.—The amount and character of the work required may be seen by referring to the texts of Gilbert and Brigham, or Davis; the recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory exercises should follow one or more lines such as are indicated below. Each student should present a note-book showing what he has done.

- (a) Studies in mathematical geography in which map and scale only are used. These should embrace such topics as length of a degree in longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; difference in length of parallels and meridians; problems in time; location of time belts, etc.
- (b) Studies of local topographic features which illustrate the various phases of stream work. Each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed.
- (c) Studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc.; distribution of dark and light colored soils; occurrences of lakes, ponds, gravel beds, clay banks, and water-bearing strips of sand and gravel.
- (d) Studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost.
- (e) Studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps. Later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation.
- (f) Studies of the climate of various countries compared with our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.
- 26. Physiology.—For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.
- 27. Spanish.—First year's work.—Elementary grammar, including thorough drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation.

Second year's work.-In addition to the foregoing, about 300-

pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

- 28. Trigonometry.—The work should cover the field of plane trigonometry, as given in standard text-books, including the solution of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.
- 20. Zoology.—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several of the larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be

### GRADUATION---FIRST DEGREES

#### THE BACHELOR'S DEGREE

A bachelor's degree is conferred upon any student who satisfactorily completes the course of study described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

### RESIDENCE REQUIREMENT

If the student is in residence at the University for one year only, that years' work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

### REQUIREMENTS FOR GRADUATION

A candidate for a bachelor's degree must pass in the subjects marked prescribed in his chosen course, and must conform to the directions given in connection with that course in regard to electives. In the Colleges of Literature and Arts, of Science, and of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the course of study as laid down.

### MILITARY SCIENCE AND PHYSICAL TRAINING

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take the course in physical training, must elect instead an equivalent number of hours in other subjects.

### THESIS

In all cases in which a thesis is required,\* the subject must be announced not later than the first Monday in November, and the

<sup>\*</sup> See requirements for graduation in the various colleges.

completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the course of study for which a degree is expected. The thesis must be presented upon regulation paper, and is deposited in the library of the University.

### SECOND BACHELOR'S DEGREE

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the course offered for the second degree include at least 30 semester hours not counted for the first degree.

### LIST OF FIRST DEGREES

- 1. The degree of Bachelor of Arts is conferred on those who complete a course in the College of Literature and Arts, or certain courses in the College of Science.
- 2. The degree of BACHELOR OF SCIENCE is conferred on those who complete a course in the College of Engineering or in the College of Agriculture. This degree is conferred on a graduate of the College of Science who completes a course in ceramics or in chemistry and may be conferred on graduates from other courses in this College on recommendation of the faculty.
- 3. The degree of Bachelor of Laws is conferred on those who complete the course in the College of Law.
- 4. The degree of Bachelor of Library Science is conferred on those who complete the course in the Library School.
- 5. The degree of BACHELOR OF MUSIC is conferred on those who complete one of the courses in the School of Music.
- 6. The degree of Graduate in Pharmacy, or of Pharmaceutical Chemist, is conferred on those who complete the shorter and the longer courses, respectively, in the School of Pharmacy.

### HONORS AND COMPETITIONS

### UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors:

Preliminary Honors are assigned on the completion of the sophomore year. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. The basis of assignment is the scholarship of the student during the freshman and sophomore years. A failure disqualifies a student for receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

Final Honors\* are assigned on graduation. The basis for the assignment is the scholarship of the student during the junior and senior years. Not more than one-tenth of the senior class may receive such honors. Final Honors are given to seniors in recognition of high scholarship, the terms being designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors. A failure received in the junior or the senior year disqualifies a student for receiving Final Honors.

Special Honors are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the senior year, has received a grade of less than eighty per

<sup>\*</sup>Honors on Graduation.—The rules governing honors on graduation in the College of Literature and Arts are stated on pages 145, 146 following. The rules given above apply to the other undergraduate colleges and schools of the University.

cent in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

The names of students receiving honors are published in the Annual Register of the University. (See Part V.)

### DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE CENTRAL DEBATING CIRCUIT OF AMERICA is an association formed by the universities of Illinois, Iowa, Minnesota, Nebraska, and Wisconsin. It holds a debate at each university on the Friday evening following the Thanksgiving recess.

THE STATE UNIVERSITY DEBATING LEAGUE consists of the state universities of Illinois, Indiana, and Ohio. Under its auspices three debates are held upon the second Friday in March, each university sending out an affirmative and a negative team.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contest for 1913 will be held on May 2, at Oberlin College, Oberlin, Ohio. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE Association holds an annual state and an inter-state oratorical contest to which representatives of this University are eligible. Orations must be upon some phase of the peace question. Cash prizes are offered in the state and inter-state contests.

A Freshman-Sophomore Debate and an Inter-Society Declamation Contest are held yearly.

The names of students who represented the University in debate and oratory in 1911-1912 are given in the list of honors at the end of this volume

#### THE INTERSCHOLASTIC ORATORICAL PRIZE

A medal of the value of twenty dollars, and two medals of the value of ten dollars each, are offered annually by the University to the high schools of the State for the best oration delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet—in 1913, on May 16.

### THE BRYAN PRIZE

In 1898 Mr. William Jennings Bryan gave to the University the sum of two hundred and fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand, nor more than six thousand, words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1913.

### B'NAI B'RITH PRIZES

The Champaign and Urbana lodge of the Independent Order of B'nai B'rith has donated to the University the sum of fifty dollars, to be awarded in prizes to students of the University for essays on Jewish subjects. The sum named is the first of five annual contributions to be given for this purpose. For information in regard to the conditions governing the award of the prizes, address the Registrar, University of Illinois, Urbana, Illinois.

### ARCHITECTURE

### THE FRANCIS J. PLYM FELLOWSHIP IN ARCHITECTURE

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is \$1,000, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the Department of Architecture.

THE PRIZE IN ARCHITECTURE of the American Academy in Rome is open for competition among qualified undergraduates and gradu-

ates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and Renaissance architecture.

### MILITARY CONTESTS AND PRIZES

#### THE UNIVERSITY BRONZE MEDALS

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practice are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (See Part V.)

### THE UNIVERSITY GOLD MEDAL

The Board of Trustees provides annually a gold medal which is to be awarded, at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 90, and three semesters' work in Military 2 with a grade of not less than 95; and he must have an average standing of not less than 85 per cent in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The reward is made for excellence in the same details as in the Hazelton contest.

#### THE HAZELTON PRIZE MEDAL

Captain W. C. Hazelton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness

- 2. Execution of the school of the soldier, without arms
- 3. Manual of arms, with and without numbers

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the facts, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

# ASSOCIATIONS, SOCIETIES, AND CLUBS

### GENERAL ORGANIZATIONS

### University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship, and as a special end the erection and maintenance of a club house open to all university men. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members. The Union elects annually a Student Council, consisting of eight seniors and seven juniors, which takes charge of certain student activities.

### THE WOMAN'S LEAGUE

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

### HOSPITAL ORGANIZATION

The Hospital Association is an organization of students to provide a fund for hospital care in case of sickness. The members of the Association pay a fee of one dollar each semester, and the fund thus raised is used to pay the hospital expenses of members who may need such care. The fund is under the control of a committee of the Council of Administration. During the past ten years the Association has rendered valuable aid to a considerable number of members. Students are advised to join the Association.

#### LITERARY SOCIETIES

The ADELPHIC, IONIAN, and PHILOMATHEAN societies for men, and the ALETHENAI, ATHENIAN, and ILLIOLA societies for women, meet weekly, on Fridays, throughout term time.

### THE CHRISTIAN ASSOCIATIONS

In 1911-1912 six hundred thirty-three men were enrolled in the Young Men's, and two hundred ninety-five women in the Young Women's Association. Each association employs a general secretary for full time. Both are affiliated with the World's Student Christian Federation.

The Association Houses furnish free for the use of all students a reading room and library, parlors, piano, magazines and papers, correspondence tables, telephones, and other conveniences. The Young Men's Christian Association building contains also lounging and game rooms, bowling alleys, and dormitories to accommodate about eighty persons.

Religious meetings for men are held on Sunday afternoons; for women on Thursday afternoons; and for both men and women on Monday evenings. There are frequent meetings for the promotion of social intercourse and good fellowship. Courses in systematic Bible study and in modern missions are offered. Within the year approximately five hundred fifty men and three hundred seventy-five women completed one or both of these courses. At the opening of the college year the associations endeavor to help new students to find desirable rooms and boarding places. Representatives of the associations meet the trains, assist students in finding satisfactory locations, and endeavor to make them feel at home. An employment bureau helps many to find work.

A copy of a Students' Hand-Book, giving information about Urbana and Champaign, the University, and the various college organizations and activities, will be sent free to prospective students.

For this Hand-Book, or for further information, address the General Secretary of either Association.

### THE COSMOPOLITAN CLUB

The Cosmopolitan Club is an organization devoted to the promotion of social and intellectual intercourse among persons of different nationalities at the University. Public meetings are held in University buildings, to afford the University community information about the customs peculiar to the various countries of the world. The clubhouse on Daniel street affords a home to many foreign students and to a limited number of native students.

### MA-WAN-DA

Ma-Wan-Da is a senior society formed by the consolidation of the two former senior societies, Shield and Trident and Phenix.

### HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

### Рні Вета Карра

Each year a certain number of the ranking students of the senior class are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

### The Phi Beta Kappa Prize

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25.00 to that member of Gamma Chapter who at his graduation from the College of Literature and Arts gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois.

### SIGMA XI

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

#### OTHER HONORARY SOCIETIES

Alpha Chi Sigma (Chemical); Alpha Gamma Rho (Agricultural); Alpha Zeta (Agricultural); Delta Kappa Chi (Commercial); Delta Sigma Rho (Oratorical); Eta Kappa Nu (Electrical Engineering); Gamma Alpha (Scientific); Kappa Delta Pi (Educational); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemical); Scabbard and Blade (Military); Scarab (Architectural); Sigma Delta Chi (Journalistic; Sigma Mu Rho (Medical); Tau Beta Pi (Engineering); Triangle (Civil Engineering).

### CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following:

In the College of Literature and Arts: Le Cercle Français, el Circulo Español, the Classical Club, the Commercial Club, der Deutsche Verein, the English Journal Club, the History Club, the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, the Romance Journal Club, the Scandinavian Club.

In the COLLEGE OF SCIENCE: The Botanical Club, the Ceramic Club, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Geological Journal Club, the Mathematical Club, the Zoological Club.

In the College of Engineering: The Architects' Club, the Civil Engineers' Club, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Mechanical Engineering Society, the Urbana Student Branch of the American Society of Mechanical Engineers, the Mining Engineering Society, Urbana Student Branch of the American Institute of Mining Engineers, the Physics Club, the Railway Club.

In the COLLEGE OF AGRICULTURE: The Agricultural Club, the Horticultural Club, the Household Science Club, the Landscape Gardeners' Club.

In the College of Law: The Fuller, John Marshall, Witenagemot, and Van Twiller Law Clubs.

In the School of Music: The University Choral and Orchestral

Society, the University Glee and Mandolin Club, the University Military Band.

In the LIBRARY SCHOOL: The Library Club.

### FRATERNITIES, SOCIETIES, AND CLUBS

National Fraternities.—Acacia (Masonic); Alpha Delta Phi; Alpha Sigma Phi; Alpha Tau Omega; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Sigma; Phi Delta Theta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Sigma Kappa; Psi Upsilon; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Delta Chi; Zeta Psi.

Sororities.—Achoth (Eastern Star); Alpha Chi Omega; Alpha Delta Phi; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Gamma; Kappa Alpha Theta; Kappa Kappa Gamma; Phi Beta; Pi Beta Phi; Sigma Kappa.

Local Clubs.—Chi Beta; Delta Omega; Ilus; Iris; Pi Omicron; Tau Lambda.

Interfraternity Organizations.—Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Helmet; Yo Ma; Yoxan; Phi Delta Psi.

### OTHER ORGANIZATIONS

Other students' societies include the following: Chinese Students' Club; Easterners' Club; Egyptian Club; H. H. Club; Ivrim; Kansas Club; Komenian Society; Lincoln League; Mask and Bauble (Dramatic); Motorcycle Club; Scribblers Club; Shomeez (Interfraternity Missouri Club); Treveri.

### UNDERGRADUATE SCHOLAR-SHIPS

(For circulars giving more detailed information concerning these scholarships, apply to the Registrar of the University.)

### COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible to a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee (\$10.00, payable once, upon entrance) and incidental fees for four years (\$24.00 a year) in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University and upon such branches of study as the President may select, is held, upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for these examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such a leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship). Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 80 per cent, exclusive of grades in Military Science and Physical Training.

### GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee, as early in the spring as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nominee is then required, under the statute, (1) to pass the scholarship examination—the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent; (2) to meet in full, either by certificate from an accredited high school or by passing entrance examination at the University, the requirements for admission to the freshman class; and (3) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1913, September 17).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.

### SCHOLARSHIPS IN CERAMICS

The University offers annually to each county in the State one

scholarship, awarded by the Trustees of the University, upon the nomination of the Illinois Clay Workers' Association, to applicants who intend to pursue either of the courses in ceramics (Ceramics, and Ceramic Engineering). These scholarships are good for four years and relieve the student from the payment of the matriculation fee (\$10.00, payable once, upon entrance) and the incidental fees (\$24.00 a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet in full, before entering, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

### SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of Agriculture in the College of Agriculture and one for prospective students of Household Science in the College of Literature and Arts, the College of Science, or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in household science upon the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible to appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible, in 1913-1914, to appointment as special students (in the College of Agriculture) at 20 years of age; beginning in September, 1914, and thereafter, at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the scholarship

at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee (\$10.00, payable once, upon matriculation), and the incidental fees (\$24.00 a year). The term of a scholarship may be extended four years, if, before it expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled.

### MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practice are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid to the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

### OTHER SCHOLARSHIPS

For scholarships in the College of Law, see page 249.
For scholarships in the Summer Session, see page 225.
For fellowships and graduate scholarships, see under Graduate School, page 205.

### BENEFICIARY AID

### EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, *Emeritus*, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars (\$50); the maximum loan is one hundred and fifty dollars (\$150) to a junior, and two hundred dollars (\$200) to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee,

### CLASS OF 1895 LOAN FUND

A fund of \$100.00 was established by the class of 1895, to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the benefit of the fund is open only to students who, at the time of application, are members of the freshman class. No person may

receive the benefit of the fund more than four years. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

### GRADUATE CLUB LOAN FUND

A fund of \$75 was established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

### WILLIAM B. M'KINLEY LOAN FUND

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than \$12,000.00, this amount as it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students upon their own personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at 5 per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee.

### HENRY STRONG SCHOLARSHIPS

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1912-13 offered the University five undergraduate scholarships of \$100.00 each, to be presented to self-supporting students of high scholastic attainments. Four of these scholarships have been awarded to members of the junior class, and one has been awarded to a member of the senior class.

### FEES AND EXPENSES

### GENERAL FEES

All University fees are payable each semester in advance.	
Colleges of Literature and Arts, Science, Engineering,	AND
Agriculture, and Library School	
Matriculation Fee. Each student not holding a scholarship, upon satisfying the requirements for admission to the Uni-	
versity, pays the matriculation fee of\$	10.00
Incidental Fee. All students, excepting those holding scholar- ships, pay, each semester, an incidental fee of	12.00
Tuition Fee. Students conditioned on entrance requirements, and special students, except special students holding scholar-	
ships, pay, each semester, a tuition fee of	7.50
Laboratory Fees. Each student working in laboratories, or in the drafting or engineering classes, is required to pay a fee varying from \$1.00 to \$10.00, to cover materials and apparatus used and breakages or damages. (For a list of Laboratory Fees, see page 124.	
Listener's Fee. Persons not connected with the University who attend classes as listeners, or for credit, pay for each course,	
each semester	7.50
Late Registration Fee. A former student who enters after the Registration Days in either semester must pay a late regis-	
tration fee of	1.00
Change Fee. For every change of study-list made later than the tenth day of instruction in either semester, there is	
charged a fee of	1.00
Special Examination Fee. For any special examination, the	
fee is	5.00

### School of Music

### College Courses

Α	matriculated student, enrolled in the School of Music only,
	pays each semester:  If his home is in Illinois, the incidental fee\$12.00
	If his home is not in Illinois, full tuition fees in voice, piano,
	violin, or other stringed instrument—
	For two lessons a week
	In harmony, counterpoint, fugue, etc
Α	matriculated student, enrolled in another department of
	the University, pays each semester:
	If his home is in Illinois, only the fees of that other de-
	partment.  If his home is not in Illinois, both the fees of that other
	department and lower tuition fees in voice, piano, violin,
	or other stringed instrument—
	For two lessons a week
	For one lesson a week
Α	non-matriculated student, enrolled in the School of Music
	only, pays full tuition fees, as above:
	For two lessons a week 32.50
	For one lesson a week
A	non-matriculated student, enrolled in another department
	of the University, pays the fees of that department and the
	lower tuition fees, as above:
	For two lessons a week. 25.00 For one lesson a week. 15.00
	In harmony, counterpoint, fugue, etc 9.00
	Preparatory Courses
A	student enrolled in the School of Music only pays, each
	semester, tuition fees in voice, piano, violin, or other
	stringed instrument, any band instrument, or public school method, as follows:
	For two lessons a week\$19.50
	For one lesson a week

Use of a piano for practice one hour a day, each semester	A student enrolled in another department of the University pays the fees of that other department and lower fees in voice, piano, violin, or other stringed instrument, any band instrument, or public school method, as follows:  For two lessons a week					
Special students, taking music only, may enter classes in physical training on paying, each semester	Use of a piano for practice one hour a day, each semester\$ 3.00					
College of Law						
College of Law						
Matriculation fee, payable upon satisfying the entrance requirements         \$10.00           Tuition fee, each semester         25.00           Students conditioned on entrance requirements pay, each semester, an additional fee of         7.50           Students not enrolled in the College of Law pay, each semester, for each Law course         5.00           SCHOOL OF PHARMACY           Matriculation fee, paid but once         \$5.00           Tuition fee, shorter course, each year         75.00           Tuition fee, longer course, each year         125.00           Laboratory deposit, shorter course, each year         15.00           Diploma fee         5.00           LABORATORY FEES (FOR MATERIALS)         1912-1913           (The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)           Architecture 6.         \$1.50  Botany 11.         1.50           Architecture 13.         1.00  Botany 102.         3.00           Architecture 14.         1.00  Botany 103.         6.00           Architecture 15.         1.00  Botany 103.         6.00           Architecture 44.         1.00  Ceramics 1.         2.00           Architecture 44.         1.00         Ceramics 1.         5.00           Architecture 48.         1						
Tuition fee, each semester						
Tuition fee, each semester         25.00           Students conditioned on entrance requirements pay, each semester, an additional fee of         7.50           Students not enrolled in the College of Law pay, each semester, for each Law course         5.00           SCHOOL OF PHARMACY         Matriculation fee, paid but once         \$ 5.00           Tuition fee, shorter course, each year         75.00           Tuition fee, longer course, each year         125.00           Laboratory deposit, shorter course, each year         10.00           Laboratory deposit, longer course, each year         15.00           Diploma fee         5.00           LABORATORY FEES (FOR MATERIALS) 1912-1913         (The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)         Architecture 10         1.50           Architecture 10         1.00         Botany 101         3.00           Architecture 13         1.00         Botany 102         3.00           Architecture 15         1.00         Botany 103         6.00           Architecture 15         1.00         Botany 106         3.00           Architecture 19         1.50         Botany 107         3.00           Architecture 43         1.00         Ceramics 1         2.00           Ar						
Students conditioned on entrance requirements pay, each semester, an additional fee of						
Semester, an additional fee of	· · · · · · · · · · · · · · · · · · ·					
Students not enrolled in the College of Law pay, each semester, for each Law course	* **					
School of Pharmacy	· · · · · · · · · · · · · · · · · · ·					
School of Pharmacy   Matriculation fee, paid but once						
Matriculation fee, paid but once.       \$ 5.00         Tuition fee, shorter course, each year.       75.00         Tuition fee, longer course, each year.       125.00         Laboratory deposit, shorter course, each year.       10.00         Laboratory deposit, longer course, each year.       15.00         Diploma fee.       5.00         LABORATORY FEES (FOR MATERIALS)       1912-1913         (The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)         Architecture 6.       \$ 1.50  Botany 10.       3.00         Architecture 13       1.00  Botany 101.       3.00         Architecture 14       1.00  Botany 102.       3.00         Architecture 15       1.00  Botany 103.       6.00         Architecture 19       1.50  Botany 107.       3.00         Architecture 21       1.50  Botany 107.       3.00         Architecture 44       1.00  Ceramics 5.       5.00         Architecture 43       1.00  Ceramics 6.       5.00         Architecture 68       1.50  Ceramics 12.       2.00         Botany 1       3.00       Ceramics 14.       4.00         Botany 2       1.50  Ceramics 15.       4.00         Botany 3       3.00       Ceramics						
Tuition fee, shorter course, each year	2011002 01 2 1111111111					
Tuition fee, longer course, each year	7.4					
Laboratory deposit, shorter course, each year	· · · · · · · · · · · · · · · · · · ·					
Laboratory deposit, longer course, each year.   15.00	, , , ,					
Diploma fee.   5.00						
(The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)           Architecture 6.         \$ 1.50   Botany 11.         1.50           Architecture 10         1.00   Botany 101.         3.00           Architecture 13         1.00   Botany 102.         3.00           Architecture 14         1.00   Botany 103.         6.00           Architecture 15         1.00   Botany 106.         3.00           Architecture 19         1.50   Botany 107.         3.00           Architecture 31         1.00   Ceramics 1.         2.00           Architecture 43         1.00   Ceramics 5.         5.00           Architecture 44         1.00   Ceramics 6.         5.00           Architecture 68         1.50   Ceramics 11.         5.00           Architecture 68         1.50   Ceramics 12.         2.00           Botany 1         3.00   Ceramics 13.         4.00           Botany 2         1.50   Ceramics 14.         4.00           Botany 3         3.00   Ceramics 15.         4.00           Botany 4         1.50   Ceramics 16.         4.00           Botany 5         7.50   Chemistry 1         8.00           Botany 6         1.50   Chemistry 1a.         6.00						
(The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)           Architecture 6.         \$ 1.50   Botany 11.         1.50           Architecture 10         1.00   Botany 101.         3.00           Architecture 13         1.00   Botany 102.         3.00           Architecture 14         1.00   Botany 103.         6.00           Architecture 15         1.00   Botany 106.         3.00           Architecture 19         1.50   Botany 107.         3.00           Architecture 31         1.00   Ceramics 1.         2.00           Architecture 43         1.00   Ceramics 5.         5.00           Architecture 44         1.00   Ceramics 6.         5.00           Architecture 68         1.50   Ceramics 11.         5.00           Architecture 68         1.50   Ceramics 12.         2.00           Botany 1         3.00   Ceramics 13.         4.00           Botany 2         1.50   Ceramics 14.         4.00           Botany 3         3.00   Ceramics 15.         4.00           Botany 4         1.50   Ceramics 16.         4.00           Botany 5         7.50   Chemistry 1         8.00           Botany 6         1.50   Chemistry 1a.         6.00	LABORATORY FEES (FOR MATERIALS ) 1912-1913					
Architecture         6         \$ 1.50          Botany         11         1.50           Architecture         10         1.00          Botany         101         3.00           Architecture         13         1.00          Botany         102         3.00           Architecture         14         1.00          Botany         103         6.00           Architecture         15         1.00          Botany         106         3.00           Architecture         31         1.00          Ceramics         1         2.00           Architecture         43         1.00          Ceramics         5         5.00           Architecture         44         1.00          Ceramics         6         5.00           Architecture         57         1.00          Ceramics         12         2.00           Botany         1         3.00          Ceramics         12         2.00           Botany         2         1.50          Ceramics         13         4.00           Botany         3         3.00          Ceramics         15         4.00           Botany         4         1.50          Ceramics         16         4.00	(The fees given below are in each case for one semester only; where a course					
Architecture 10       1.00 Botany 101       3.00         Architecture 13       1.00 Botany 102       3.00         Architecture 14       1.00 Botany 103       6.00         Architecture 15       1.00 Botany 106       3.00         Architecture 19       1.50 Botany 107       3.00         Architecture 31       1.00 Ceramics 1       2.00         Architecture 43       1.00 Ceramics 5       5.00         Architecture 44       1.00 Ceramics 6       5.00         Architecture 57       1.00 Ceramics 12       2.00         Architecture 68       1.50 Ceramics 12       2.00         Botany 1       3.00 Ceramics 13       4.00         Botany 2       1.50 Ceramics 15       4.00         Botany 3       3.00 Ceramics 15       4.00         Botany 4       1.50 Ceramics 16       4.00         Botany 5       7.50 Chemistry 1       8.00         Botany 6       1.50 Chemistry 1a       6.00         Botany 8       6.00 Chemistry 3       8.00						
Architecture     31     1.00 Ceramics     1.00 Ceramics       Architecture     43     1.00 Ceramics     5.00       Architecture     44     1.00 Ceramics     6     5.00       Architecture     57     1.00 Ceramics     11     5.00       Architecture     68     1.50 Ceramics     12     2.00       Botany     1     3.00 Ceramics     13     4.00       Botany     2     1.50 Ceramics     14     4.00       Botany     3     3.00 Ceramics     15     4.00       Botany     5     7.50 Chemistry     1     8.00       Botany     6     1.50 Chemistry     1a     6.00       Botany     7     3.00 Chemistry     1a     6.00       Botany     8     6.00 Chemistry     3     8.00	Architecture 10 1 00 Rotany 101 3.00					
Architecture     31     1.00 Ceramics     1.00 Ceramics       Architecture     43     1.00 Ceramics     5.00       Architecture     44     1.00 Ceramics     6     5.00       Architecture     57     1.00 Ceramics     11     5.00       Architecture     68     1.50 Ceramics     12     2.00       Botany     1     3.00 Ceramics     13     4.00       Botany     2     1.50 Ceramics     14     4.00       Botany     3     3.00 Ceramics     15     4.00       Botany     5     7.50 Chemistry     1     8.00       Botany     6     1.50 Chemistry     1a     6.00       Botany     7     3.00 Chemistry     1a     6.00       Botany     8     6.00 Chemistry     3     8.00	Architecture 14					
Architecture     31     1.00 Ceramics     1.00 Ceramics       Architecture     43     1.00 Ceramics     5.00       Architecture     44     1.00 Ceramics     6     5.00       Architecture     57     1.00 Ceramics     11     5.00       Architecture     68     1.50 Ceramics     12     2.00       Botany     1     3.00 Ceramics     13     4.00       Botany     2     1.50 Ceramics     14     4.00       Botany     3     3.00 Ceramics     15     4.00       Botany     5     7.50 Chemistry     1     8.00       Botany     6     1.50 Chemistry     1a     6.00       Botany     7     3.00 Chemistry     1a     6.00       Botany     8     6.00 Chemistry     3     8.00	Architecture 15					
Architecture     44.     1.00     ceramics     6     5.00       Architecture     57     1.00     Ceramics     11.     5.00       Architecture     68     1.50     Ceramics     12.     2.00       Botany     1     3.00     Ceramics     13.     4.00       Botany     2     1.50     Ceramics     14.     4.00       Botany     3     3.00     Ceramics     15.     4.00       Botany     4     1.50     Ceramics     16.     4.00       Botany     5     7.50     Chemistry     1     8.00       Botany     6     1.50     Chemistry     1a.     6.00       Botany     8     6.00     Chemistry     1b.     6.00       Botany     8     6.00     Chemistry     3     8.00	Architecture 31					
Architecture 57         1.00         Ceramics 11         5.00           Architecture 68         1.50         Ceramics 12         2.00           Botany 1         3.00         Ceramics 13         4.00           Botany 2         1.50         Ceramics 14         4.00           Botany 3         3.00         Ceramics 15         4.00           Botany 4         1.50         Ceramics 16         4.00           Botany 5         7.50         Chemistry 1         8.00           Botany 6         1.50         Chemistry 1a         6.00           Botany 7         3.00         Chemistry 1b         6.00           Botany 8         6.00         Chemistry 3         8.00						
Botany 1         3.00 Ceramics 13         4.00           Botany 2         1.50 Ceramics 14         4.00           Botany 3         3.00 Ceramics 15         4.00           Botany 4         1.50 Ceramics 16         4.00           Botany 5         7.50 Chemistry 1         8.00           Botany 6         1.50 Chemistry 1a         6.00           Botany 7         3.00 Chemistry 1b         6.00           Botany 8         6.00 Chemistry 3         8.00	Architecture 57					
Botany         2         1.50 Ceramics         14.         4.00           Botany         3.00 Ceramics         15.         4.00           Botany         4.00         1.50 Ceramics         16.         4.00           Botany         7.50         Chemistry         1.         8.00           Botany         6.00 Chemistry         1a.         6.00           Botany         7.         3.00 Chemistry         1b.         6.00           Botany         8.         6.00 Chemistry         3.         8.00						
Botany 4         1.50         Ceramics 16						
Botany 6         1.50         Chemistry 1a         6.00           Botany 7         3.00         Chemistry 1b         6.00           Botany 8         6.00         Chemistry 3         8.00	Botany 4					
Botany 7 3.00 Chemistry 1b. 6.00 Botany 8 6.00 Chemistry 3 8.00	potary outliness and a second					
	Botany 7					
Botany 9 3.00 Chemistry 3 (½ sem.) 5.00	Botany 8					

Chemistry 4		Entomology 109	1.50
Chemistry 5a		General Engineering Drawing 2	1.00
Chemistry 5b		Geology 1Geology 1a	1.00
Chemistry 5c (3 hrs.)		Geology 2	1.00
Chemistry 8		Geology 3	2.25
Chemistry 9a		Geology 4	3.00
Chemistry 9b		Geology 5	2.75
Chemistry 9c		Geology 5a	2.75
Chemistry 10a	5.00	Geology 6	1.00
Chemistry 10b (½ sem.)	2.00	Geology 8	1.00
Chemistry 13a		Geology 9	1.00
Chemistry 13b	10.00	Geology 10	1.50
Chemistry 15	8.00	Geology 11	1.00
Chemistry 16	3.00	Geology 12	2.25
Chemistry 21	8.00	Geology 13	2.25
Chemistry 22	8.00	Geology 14Geology 15	1.00
Chemistry 33	8.00		1.00
Chemistry 35			1.00
Chemistry 61	5.00		1.00
	5.00	Geology 23	1.00
Chemistry 66	5.00	Household Science 1	3.00
Chemistry 68a		Household Science 4	5.00
Chemistry 68b		Household Science 5	3.00
Chemistry 70	3.00	Household Science 14	3.00
Chemistry 71	3.00	Mechanical Engineering 3	3.00
Chemistry 72	3.00	Mechanical Engineering 12	3.00
Chemistry 102c		Mechanical Engineering 13	3.00
Chemistry 103		Mechanical Engineering 27	3.00
Chemistry 103a	10.00	Municipal and Sanitary Eng. 2	1.00
Chemistry 106		Physics 2b	1.00
Chemistry 108		Physics 3	2.00
Chemistry 110		Physics 4	2.00
Chemistry 111 (per hr.)	2.00	Physics 6b	2.00
Civil Engineering 4	1.50	Physics 15	2.00
Civil Engineering 4a		Physics 16	2.00
Civil Engineering 51		Physics 20bPhysics 25	2.00
Civil Engineering 13a		Physics 30b	2.00
Civil Engineering 13b	.50	Physics 31	2.00
Civil Engineering 14	1.50	Physiology 1	
Civil Engineering 14a		Physiology 2	3.50
Civil Engineering 21		Physiology 3	3.50
Civil Engineering 22 Electrical Engineering 16	1.00	Physiology 5	3.50
Electrical Engineering 22	4.00	Physiology 103	3.50
Electrical Engineering 23		Psychology 3	
Electrical Engineering 24	5.00	Psychology 4	2.00
Electrical Engineering 27		Railway Engineering 11	2.00
Electrical Engineering 28		Railway Engineering 63	3.00
Electrical Engineering 29		T. and A. M. 9	2.00
Entomology 1 Entomology 2		T. and A. M. 10	
Entomology 3		Zoölogy 1	2.50
Entomology 4	. 1.50	Zoölogy 2	3.50
Entomology 5	. 1.50	Zoölogy 3	3.00
Entomology 6		Zočlogy 6	3.00
Entomology 7		Zoölogy 7Zoölogy 9	1.00
Entomology 10			
Entomology 11			
Entomology 11	1.50	Zoölogy 11	1.50
Entomology 102 Entomology 103	. 1.50 . 1.50 . 1.50	Zoölogy 11Zoölogy 13aZoölogy 16	1.50 2.00 1.00
Entomology 102	. 1.50 . 1.50 . 1.50	Zoölogy 11Zoölogy 13a	1.50 2.00

### AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for un	der-
graduate students attending at Urbana, exclusive of books, cloth	ning,
railroad fare, laboratory fees, if any, and small miscellaneous ne	eds:
*Semester fees\$ 24.00 to \$ 2	24.00
Room rent for each student (two in room) 72.00 " 8	80.00
Table board in boarding houses and clubs 144.00 " 16	52.00
Washing 20.00 "	30.00

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy a cadet uniform, which costs \$15.00. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$18.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$350.00 to \$450.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fees, see page 116.

### BOARD AND ROOMS

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places.

<sup>\*</sup>Students of law and music, special students, and conditioned students must make needed changes in the amount given for "semester fees."

# PART II THE COLLEGES AND SCHOOLS



## THE COLLEGES OF LIBERAL ARTS\*

### THE COLLEGE OF LITERATURE AND ARTS

For a description of the buildings used by this College, see page 54, for collections belonging to it (art, archaeology, commerce, education, and European culture), see page 63; for a summary of its courses, see page 71; for clubs and societies auxiliary to its courses of study, see page 114; for fees, see page 122.

### **PURPOSE**

The purpose of the College of Literature and Arts is to secure for its students a liberal education, including both the humanities and the sciences. Students who complete the course receive the degree of Bachelor of Arts. This College is especially adapted to the needs of the following classes of students:

- 1. Those who wish to pursue a four years' course for the purpose of general culture.
- 2. Those who take a somewhat general course in the arts and sciences as a basis for later professional or technical studies. It will ordinarily be possible for a good student to arrange his work in such a way as to secure in six years a professional or technical degree in addition to that in arts.
- 3. Students who desire to prepare themselves for teaching. Under the modified elective system a student may specialize to a considerable extent in the particular subject which he wishes to teach and may also find time for courses in education and related subjects which are of interest to teachers generally. Such students should, as a rule, continue their preparation in the Graduate School.
- 4. Students who desire to devote a considerable part of their undergraduate course to specific preparation for some particular calling other than teaching.—Such students may select courses in:
  - a. Business Administration, including general business, consular

<sup>\*</sup>The Board of Trustees, on July 5, 1912, approved a recommendation of the University Senate that the President of the University be authorized to effect, as soon as may be practicable, a consolidation of the present colleges of Literature and Arts and Science.

service, banking, insurance, accounting, railway administration and transportation.

- b. Journalism.
- c. Household science and administration.

Students regularly registered for these courses are subject to the general requirements of the College, but must meet also certain special requirements described below.

#### **ADMISSION**

See the general statement of the entrance requirements of the University, pages 75 ff.

### SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 83.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, though unable to meet the formal requirements for entrance, are substantially prepared for work of college grade.

### GENERAL REQUIREMENTS FOR GRADUATION

The only degree given on graduation from the College of Literature and Arts is that of Bachelor of Arts. The following general requirements apply to all candidates for this degree:

- A. University Requirements.—Each candidate must meet the general University requirements as to residence and registration. He must also secure credit in approved courses (see pages 131-135 below) amounting to 130 hours. An hour is one class period a week for one semester, each class period presupposing two hours' preparation by the student, or the equivalent in laboratory or drawing room.
- B. Prescribed Studies.—Subjects specifically prescribed: Rhetoric 1\* (6 hours); Physical Training, I and Ia for men, 7 and 9 for women; Military Science I and 2 for men.
- C. Group Requirements,—Every candidate must offer a minimum of 8 hours in each of the following groups:
  - I. English, including literature and rhetoric.
- II. Ancient and modern languages other than English, including Greek, Latin, the Germanic languages, and the Romance languages.

<sup>\*</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 81.

Only courses which require the use of a foreign language may be counted in this group, and the 8 hours offered must all be in the same language.

III. The social sciences, including history, economics, political science, and sociology,

IV. Mathematics and philosophy, including mathematics, education, philosophy, and psychology. A candidate who elects mathematics must take at least five hours of it. If a student does not elect mathematics, his elections in this group must include work in at least two of the other departments of the group. That is, if he does not take mathematics, he must take either philosophy and psychology, or philosophy and education, or education and psychology With the exception of mathematics, no subject of this group is open to freshmen.

V. The natural sciences, including astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology. Zoology 16 may not be counted toward this group requirement.

D. Major Subjects.—Each candidate must select some one subject to be designated as his major, and secure credit in that subject to the amount of 24 hours. The courses selected for the last two years should include some distinctly advanced work. The subjects which may be recognized as majors in this college are subject to additions from time to time; at present they are as follows: Classics1; economics; education; English2 (including English literature and rhetoric); French'; German'; Greek'; history; household science; Latin1; mathematics; philosophy; political science; psychology: sociology.

Special requirements and suggestions for students in business courses and in household science are indicated below, on pages 135 and 143 respectively. Students holding scholarships in household science must make that subject their major, and take one of the courses outlined on pages 143 and 144 below.

E. Elective Subjects.—The remainder of the course is made up of electives chosen under the following conditions:

1. Credit is regularly given for courses properly announced in the following subjects: Art and design (the total credit in this department is limited to 20 hours); the classics; Germanic

<sup>For the definition of the major in this subject, see below page 299.
For the definition of the major in English, see below page 324.
A major in French must include 24 hours in addition to French 1.
A major in German must include 24 hours in addition to German 1 and 3.</sup> 

languages; Romance languages; English; history; economics (including accounting and commercial law); political science; sociology; philosophy; psychology; education; astronomy; mathematics; physics; chemistry (not including technical courses in chemical engineering); geology; botany (except Botany 12); zoology; entomology; physiology; household science.

- 2. Not more than 40 hours in any one subject may be counted for graduation, except when the student is writing a thesis. In this case he may count, in addition to the 40 hours, the hours of the seminar course in which he does his thesis work. In the department of English a student may take 40 hours in addition to Rhetoric I.
- 3. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours of credit for one semester, he must stay in the class during the semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.
- 4. Seniors registered in courses open to freshmen may receive only one-half of the credit regularly assigned to such courses. For the year 1912-1913 the following courses are included in this list: Art and Design I and 2; Astronomy I; Botany II; Chemistry I; Economics 7, 22, 26, 27; English I, 10, 20; Entomology I; French I; Geology 3, 10, 14, 23; German I, 3; Greek I; History I, II; Household Science 2, 7; Latin I; Library Science I2; Mathematics 2, 4; Rhetoric I; Spanish I; Zoology I, 16.
- 5. A limited amount of credit toward the A.B. degree is ordinarily given for courses offered in other colleges and schools of this University as follows:

Physical Training.—Not to exceed 5 semester hours.

Military Science and Tactics.—Military Science 1 and 2.

Law.—Law I (Contracts); Law 2 (Torts); Law 3 (Real Property); Law 4 (Pleading); Law 5 (Criminal Law); Law 6 (Personal Property). The total credit is limited to 24 hours. None of these courses may be taken before the senior year. Law I may count for six hours only.

Engineering.—General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 7 and 8 (Analytical Mechanics); Mechanical Engineering

7 or 15 (Thermodynamics); Civil Engineering 10 or 21 (Surveying); Architecture 31, 32 (Architectural Drawing); Architecture 13, 14, 15, 16, (History of Architecture); Electrical Engineering 1 and 21, or 2 and 26 (Principles).

Agriculture.—Agricultural Extension 2 (Elementary Agriculture for teachers); Agronomy 25 (Seeds), for business students only; Agronomy 9 (Soil Physics); Farm Management 1; Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Principles of Evolution as Applied to the Improvement of Domesticated Animals and Plants); Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (General Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

Library Science.—Library 3 (selection of Books); 7 (History of Libraries); 9 (Book Making); 12 (General Reference); 13 (Public Documents). The total credit allowed in Library Science will not ordinarily exceed 14 hours. The course in General Reference (Lib. 12) is of special value to students in the College of Literature and Arts.

Music.—Music 1, 2, 3, 4, and 5 (courses in the history and theory of music).

Courses not listed under paragraphs I to 5 above may not be counted for the degree of A.B., except by special permission of the Dean of the College.

F. Bachelors' Theses.—A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. The presentation of a thesis is specifically required of all candidates for the honor degree. See below, page 145.

### ARRANGEMENT OF COURSES

#### FIRST YEAR

### Subjects Prescribed for Freshmen

The following subjects must be taken during the freshman year: Rhetoric 1,\* three hours each semester; Military 2, one hour each semester, and Military 1, one hour second semester (for men);

<sup>\*</sup>See footnote, page 130.

Physical Training (Physical Training I and Ia for men; 7 and o -Physiology 6-for women); foreign language, 4 hours each semester.

### Freshman Electives

The following subjects are open to freshmen. The total amount taken in any semester is limited to eighteen hours, and should not be less than fifteen. In making his choice, the student must include subjects in at least three of the groups indicated on pages 130, 131, The Roman numerals refer to these groups.

- English 10<sup>1</sup> (3): Rhetoric 1 (3).
- French I (4) or 2 (4); German I (4) or 3 (4) or 4 (4) or 5 (4); Greek I (4) or 7 (3); Latin I (4) or 2 (4); Spanish I (4).
- III. Mathematics 2 (3) and 4 (2).
- IV. Economics 7 (3) or 26 (3); History 1 (4).
- V. Astronomy 1 (3); Botany 2<sup>2</sup> (5), 4 (5), 11 (5); Chemistry 18 (5) or 128 (4); Entomology 1 (2); Geology 32 (5). 14 (3), 23<sup>2</sup> (5); Physics 2a<sup>4</sup> and 2b<sup>4</sup> (5); Zoology I<sup>8</sup> (5).

### Second Semester:

- English 10 (3): Rhetoric 1 (3).
- II. French I (4) or 2 (4); German 3 (4) or 4 (4) or 5 (4) or 6 (4) or 7 (4); Greek I (4), 4 (4), or 6 (3); Latin I (4) or 2 (4); Spanish I (4).
- Mathematics 6 (5). III.
- Economics 22 (3) or 27 (3); History I (4) or II (3). IV.
- Astronomy 4 (5); Botany I (5), 22 (5); Chemistry I2 (5) or 1a2 (4) or 2 and 3 (5); Entomology 1 (2); Geology 38 (5) or 238 (5): Physics 2a4 and 2b4 (5): Zoology 2 (5), 18 (5), or 16 (2).

The following subjects not included in any group are also open to freshmen:

### First Semester:

Art and Design I (2 or 3).

<sup>2</sup> Either semester may be taken separately, or both together; entrance botany required.

¹The figure immediately following the subject is the number of the course (see "General Description of Courses," page 255 ff.); the figure in parenthesis indicates the number of credit hours to be secured in the course each semester.

<sup>&</sup>lt;sup>3</sup> May be taken in either semester, but not in both.
<sup>4</sup> Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.

Household Science 2 (2) or 7 (2).

Library Science 12 (2).

Second Semester:

Art and Design I (3), 2 (2), 3 (3), 10 (1), or 12 (2).

Household Science I (3).

Library Science 12 (2).

### SECOND YEAR

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

### ELECTION

Aside from the subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

### COURSES IN BUSINESS ADMINISTRATION

Courses in economics, accountancy, banking, commerce, railway administration, and industry are offered in combination with courses in language, law, and science, with the aim of providing a university training for business life. The combined courses are designed to give the student a knowledge of the general principles that underlie all lines of business, with special training in the work of some particular calling.

### ARRANGEMENT OF COURSES

The subjects of study are so arranged as to furnish training for (1) general business; (2) banking; (3) accountancy; (4) railway traffic and accountancy; (5) railway transportation; (6) insurance; (7) the consular service.

The work of the class-room is supplemented with lectures by practical specialists, and with visits of inspection to industrial and mercantile establishments.

The outlines of the courses in General Business, Banking, Accountancy, Railway Administration, Insurance, and the Course for the Consular Service are given below.

### GENERAL BUSINESS COURSE

The general business course is intended for students who wish a general knowledge of modern business organization and methods

and their relation to the public welfare, without specializing in the details of any particular business.

Every student must take 15 to 18 hours of work each semester. Students desiring mathematics, or taking courses requiring it, should elect it the first year, omitting Economic Resources (Economics 26), or Economic History of the United States (Economics 22), and science, which may then be elected the second year.

### Course in General Business

### FIRST YEAR

Science

FIRST SEMESTER
Prescribed Subjects

Foreign language Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1, 1a) Economic Resources (Econ. 26) or English Econ. Hist. (Econ. 7) Mathematics (Math. 2 4) or Science

Prescribed Subjects SECOND YEAR

Principles of Econ. (Econ. 1)
Amer. Nat'l Gov't (Pol. Sci. 1)
Military (Mil. 2)
History of U. S. (Hist. 3) or
European History (Hist. 1)
Suggested Electives
Foreign language continued
Mathematics
Science

SECOND SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 1 2)
Physical Training (P. T. 1a)
Modern Industries (Econ. 27) or
Econ. Hist. of U. S. (Econ. 22)
Mathematics (Math. 6) or

Prescribed Subjects
Money & Banking (Econ. 3)
Business Organization (Econ. 6)
Business Writing (Rhet. 10)
Military (Mil. 2)
State and Local Gov't (Pol. Sci. 3)
History of U. S. (Hist. 3) or
European History (Hist. 1)
Suggested Electives
Foreign language continued
Mathematics
Science

THIRD YEAR

Prescribed Subjects

g (Acc'y 1)

Accounting (A

Accounting (Acc'y 1)
Corporation Management (Econ. 10)
Domestic Com. (Econ. 28) or
Foreign Com. (Econ. 29)
Suggested Electives
History

Public Finance (Econ. 5)
Foreign language continued
Accounting (Acc'y 3)
Railway Transportation (Econ. 41)
State Administration (Pol. Sci. 13)
Psychology (Psych. 1)
Municipal Gov't (Pol. Sci. 4)

FOURTH YEAR

Prescribed Subjects
Seminar (Econ. 18)
Labor Problems (Econ. 12)
Commercial Law (Econ. 25)
Suggested Electives
Political Ethics (Phil. 9)
Constitutional Law (Pol. Sci. 5)
(See also third year electives)

Prescribed Subjects
, Accounting (Acc'y 1)
Organization of Foreign Com. (Econ.
31) or
Tariff and Customs Regulations
(Econ. 30)
Suggested Electives
History
Indust. Consolid. (Econ. 11)

Foreign language continued Adv. Accounting (Acc'y 4) Railway Rates (Econ. 42) Psychology (Psych. 2) Logic (Phil. 1b) YEAR

Prescribed Subjects

Seminar (Econ. 18)

Com. Law (Econ. 25)

Econ. Development of Europe

(Econ. 13)

Suggested Electives

Social Reform (Econ. 21)

Finan. Hist. of U. S. (Econ. 4)

(See also third year electives)

### COURSE IN BANKING

The work of the first and second years in banking is the same as in the course in general business, but students must take advanced algebra (Math. 2), which is a prerequisite for the mathematics of investment (Math. 23a).

### Course in Banking THIRD YEAR

History

FIRST SEMESTER Prescribed Subjects
Accounting (Acc'y 1)
Corporation Management (Econ. 10)
Public Finance (Econ. 5)
Suggested Electives
Indust. Accounting (Acc'y 3)
Domestic Com. (Econ. 28)
Logic (Phil. 1a) Prescribed Subjects

History

FOURTH YEAR

Prescribed Subjects Practical Banking (Econ. 9) Foreign Com. (Econ. 29) Commercial Law (Econ. 25) Seminar (Econ. 18) Suggested Electives
Labor Problems (Econ. 12)
Political Ethics (Phil. 9)

SECOND SEMESTER Prescribed Subjects Accounting (Acc'y 1) Math. of Investment (Math. 23a) Econ. Development of Europe (Econ. 13)
Suggested Electives Tariff and Customs Regulations (Econ. 30) Indust. Consolid. (Econ. 11)

Prescribed Subjects The Money Market (Econ. 8) Finan. Hist. of U. S. (Econ. 4b) Commercial Law (Econ. 25)

Seminar (Econ. 18) Suggested Electives Organization of Foreign Com. (Econ. 31) Law of Taxation (Pol. Sci. 30)

### COURSES IN ACCOUNTANCY

The development of the commercial, industrial, and financial interests of the country has given rise to a demand for three classes of workers in accountancy, (1) the teacher, (2) the business executive. (3) the public accountant.

In order to give students adequate preparation for these three fields, the University offers several courses of study:

- A four years' course in business administration with a maximum of work in accountancy, economics, history, political science, statistics, language, and other subjects.
- 2. Work in accountancy open to election by students in business administration as part of the general training necessary to a successful business executive.
- 3. A two years' special course in preparation for the examinations required by law for securing a certificate as certified public accountant.

According to this law, passed in 1903, establishing accountancy upon a professional basis, candidates are required to pass examinations in commercial law as affecting accountancy, the theory of accounts, practical accounting, and auditing.

### Four-Year Course in Accountancy

### FIRST YEAR

FIRST SEMESTER
Prescribed Subjects

Foreign language Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1, 1a) Algebra and Trig. (Math. 2, 4) English Econ. Hist. (Econ. 7) or Economic Resources (Econ. 26) Second Semester
Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1a)
Analytical Geom. (Math. 6)
Modern Industries (Econ. 27) or
Econ. Hist. of U. S. (Econ. 22)

### SECOND YEAR

Prescribed Subjects
Principles of Econ. (Econ. 1)
Prin. of Accountancy (Acc'y 1)
Military (Mil. 2)
Science

Suggested Electives
Foreign language continued
Calculus (Math. 8a)
European History (Hist. 1)
History of U. S. (Hist. 3)
Amer. Nat'l Gov't (Pol. Sci. 1)

Prescribed Subjects
Money and Banking (Econ. 3)
Business Organization (Econ. 6)
Business Writing (Rhet. 10)
Prin. of Accountancy (Acc'y 1)
Military (Mil. 2)
Science

Suggested Electives
Foreign language continued
European History (Hist. 1)
History of U. S. (Hist. 3)
State and Local Gov't (Pol. Sci. 3)

### THIRD YEAR

Prescribed Subjects
Indust. Accounting (Acc'y 3)
Corporation Management (Econ. 10)
Public Finance (Econ. 5)
Municipal Gov't (Pol. Sci. 4)
Suggested Electives
Foreign language continued
Domestic Commerce (Econ. 28)
Logic (Phil. 1a)
Railway Transportation (Econ. 41)

Prescribed Subjects
Adv. Accounting (Acc'y 4)
Indust. Consolid. (Econ. 11)
Mathematics of Investment (Math. 23a)

Suggested Electives
Foreign language continued
Tariff and Customs Regulations
(Econ. 30)
Railway Rates (Econ. 42)

#### FOURTH YEAR

Prescribed Subjects
Advanced Accounting (Acc'y 7)
Commercial Law (Econ. 25)
Seminar (Econ. 18)
Political Ethics (Phil. 9)
Suggested Electives
Practical Banking (Econ. 9)
Labor Problems (Econ. 12)

Prescribed Subjects
Auditing (Acc'y 5)
Commercial Law (Econ. 25)
Seminar (Econ. 18)
Suggested Electives
Money Market (Econ. 8)
Finan. Hist. of U. S. (Econ. 4b)

### Two-Year Course in Accountancy

This course is open only to students in accountancy who are preparing for the C. P. A. examinations, who are at least 20 years of age and able to matriculate in the University, and who can furnish satisfactory evidence of at least one year's experience in the office of a practicing public accountant. The course must be taken as outlined. No variation from it is allowed.

# Two-Year Course in Accountancy

FIRST YEAR

FIRST SEMESTER
Prescribed Subjects
Prin. of Accountancy (Acc'y 1)
Indust. Accounting (Acc'y 3)
Rhetoric (Rhet. 1)
Principles of Econ. (Econ. 1)
Algebra (Math. 2)
Military (Mil. 2)
Physical Training (P. T. 1, 1a)

EAR

SECOND SEMESTER

Prescribed Subjects

Prin. of Accountancy (Acc'y 1)

Adv. Accountancy (Acc'y 4)

Rhetoric (Rhet. 1)

Money and Banking (Econ. 3)

Mathematics of Investment

(Math. 23a)

Military (Mil. 1, 2)

Physical Training (P. T. 1a)

SECOND YEAR

Prescribed Subjects
Adv. Accounting (Acc'y 7) Corporation Management (Econ. 10)
Commercial Law (Econ. 25)
Practical Banking (Econ. 9) or
Economics of Ins. (Econ. 33)
Military (Mil. 2) Auditing (Acc'y 5)
Auditing (Acc'y 5)
Railway Accounting (Acc'y 6)
Business Writing (Rhet. 10)
Commercial Law (Econ. 25)
Property Insurance (Econ. 34)
Military (Mil. 2)

### COURSES IN RAILWAY ADMINISTRATION

There are two courses offered under the head of railway administration, one emphasizing those subjects which are of most value to the student interested in the accounting and traffic aspects of railway work, the other laying stress upon the transportation service, properly so called, and intended to prepare men directly for the transportation departments of railways.

# Course in Railway Traffic and Accounting

FIRST YEAR

FIRST SEMESTER
Prescribed Subjects Prescribed Subjects
Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 2)
Physical Training (P. T. 1, 1a)
Algebra and Trig. (Math. 2, 4)
Economic Resources (Econ. 26) or
Engl. Econ. Hist. (Econ. 7)

Prescribed Subjects
Principles of Econ. (Econ. 1)
Calculus (Math. 8a)
Physics (Phys. 1 and 3)
Military (Mil. 2)

Second Semester Prescribed Subjects Foreign language Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1a)
Analytical Geometry (Math. 6)
Econ. Hist. of U. S. (Econ. 22) or
Modern Industries (Econ. 27) SECOND YEAR

Prescribed Subjects
Money and Banking (Econ. 3) Business Organization (Econ. 6) Business Writing (Rhet. 10) Physics (Phys. 1 and 3) Military (Mil. 2)

THIRD YEAR

Prescribed Subjects
Accounting (Acc'y 1)
Ind. Accounting (Acc'y 3)
Corporation Management (Econ. 10) Railway Transportation (Econ. 41)

Prescribed Subjects
Accounting (Acc'y 1)
Adv. Accounting (Acc'y 4)
Indust. Consolid. (Econ. 11)
Railway Rates (Econ. 42)
Mathematics of Investment (Math.

FOURTH YEAR

Prescribed Subjects Accounting (Acc'y 6, 7) Traffic Admin. (Econ. 43) or Railway Operation (Econ. 45) Sem. in R'y Admin. (Econ. 18) Commercial Law (Econ. 25) Prescribed Subjects
Accounting (Ace'y 5)
Traffic Admin. (Econ. 43) or
Railway Operation (Econ. 45)
Sem. in R'y Admin. (Econ. 18)
Commercial Law (Econ. 25)

### Course in Railway Transportation

In addition to the prescribed subjects in this course other subjects may be elected where opportunity offers, but six hours of such elections must be from history, political science, more advanced language, or ethics.

# Course in Railway Transportation

### FIRST YEAR

FIRST SEMESTER Prescribed Subjects Foreign language Foreign language Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1, 1a) Gen. Engin. Drawing (G. E. D. 1) Algebra and Trig. (Math. 2, 4)

Prescribed Subjects
Principles of Econ. (Econ. 1)
Calculus (Math. 7) Physics (Phys. 1, 3) Military (Mil. 2)

SECOND SEMESTER Prescribed Subjects Foreign language Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1a)
\*Descriptive Geom. (G. E. D. 2) Anal. Geom. (Math. 6) SECOND YEAR

Prescribed Subjects Money and Banking (Econ. 3) Property and Banking (Econ. 3) Calculus (Math. 9) Physics (Phys. 1, 3) Military (Mil. 2) Anal. Mech. (T. and A. M. 7) Engines and Boilers (M. E. 11)

THIRD YEAR

Prescribed Subjects Corporation Management (Econ. 10) Railway Transportation (Econ. 41) Traffic Admin. (Econ. 43) Anal. Mech. and Resist. of Materials (T. and A. M. 8, 9)

Prescribed Subjects
Business Writing (Rhet. 10)
Railway Rates (Econ. 42)
Traffic Administration (Econ. 43)
Mech. Engin. Lab. (M. E. 13)
Electrical Engin. (E. E. 16)
Surveying (C. E. 10) FOURTH YEAR

Prescribed Subjects
Railway Operation (Econ. 45)
Sem. in R'y Admin. (Econ. 18)
Accounting (Acc'y 1)
Labor Problems (Econ. 12)
Locomotives (R'y M. E. 1)
Engin. Materials (T. and A. M. 6)

Prescribed Subjects Railway Operation (Econ. 45) Sem. in R'y Admin. (Econ. 18) Accounting (Acc'y 1) R'y Tests (R'y M. E. 11)

# COURSE IN INSURANCE

The work of the first and second years in insurance is the same as in the course in railway traffic and accounting, except that Econ. 7 (Econ. Hist. of England) may take the place of Economic Resources (Econ. 26), and that any other science may be taken instead of physics. (See page 139).

### Course in Insurance

### THIRD YEAR

FIRST SEMESTER Prescribed Subjects
Accounting (Acc'y 1)
Corporation Management (Econ. 10) American Nat'l Gov't (Pol. Sci. 1)

Suggested Electives Foreign language continued History of U. S. (Hist. 3) European History (Hist. 1) Public Finance (Econ. 5)

SECOND SEMESTER Prescribed Subjects
Accounting (Acc'y 1)
Mathematics of Investment (Math. 23a) State and Local Gov't (Pol. Sci. 3) Suggested Electives Foreign language continued History of U. S. (Hist. 3) European History (Hist. 1)

<sup>\*</sup>This subject is to be taken for three hours' credit only.

### FOURTH YEAR

Prescribed Subjects

Econ. of Insurance (Econ. 33) Commercial Law (Econ. 25) Commercial Law (Econ. 28)
Sem. in Insur. (Econ. 18)
Actuarial Theory (Math. 31)
State Administration (Pol. Sci. 13)
Suggested Electives
Political Ethics (Phil. 9)
Labor Problems (Econ. 12)

Practical Banking (Econ. 9)

Prescribed Subjects

Property Insurance (Econ. 34)
Commercial Law (Econ. 25)
Sem. in Insur. (Econ. 18)
Suggested Electives
Finan. Hist. of U. S. (Econ. 4b)
Econ. Development of Europe

(Econ. 13) Indus. Consolid. (Econ. 11) Money Market (Econ. 8)

### COURSE FOR THE CONSULAR SERVICE

This course is intended for students who plan to take the civil service examinations for consular and diplomatic positions. The electives chosen depend on the country in which the student aims to serve.

### Course for the Consular Service

### FIRST YEAR

FIRST SEMESTER

Prescribed Subjects Foreign language
Rhetoric (Rhet. 1)
Military Training (Mil. 2)
Physical Training (P. T. 1, 1a)
Economic Resources (Econ. 26) or
English Econ. Hist. (Econ. 7)
European History (Hist. 1)

Foreign language
Rhetoric (Rhet. 1)
Military Training (Mil. 1, 2)
Physical Training (P. T. 1a)
Modern Industries (Econ. 27) or
Econ. Hist, of U. S. (Econ. 22)
European History (Hist. 1) SECOND YEAR

Prescribed Subjects
Principles of Econ. (Econ. 1) Foreign language continued Amer. Nat'l Gov't (Pol. Sci. 1) Science Military (Mil. 2)

Domestic Com. (Econ. 28) or Foreign Com. (Econ. 29) Foreign language continued History of U. S. (Hist. 3) International Law (Pol. Sci. 6)

Prescribed Subjects

Prescribed Subjects
Money and Banking (Econ. 3)
Business Organization (Econ. 6)
Foreign language continued
State and Local Gov't (Pol. Sci. 3)
Business Writing (Rhet. 10) Science Military (Mil. 2)

SECOND SEMESTER Prescribed Subjects

THIRD YEAR

Prescribed Subjects

Organization of For. Com. (Econ. 31) or Tariff and Customs Regulations (Econ. 30)

Foreign language continued History of U. S. (Hist. 3) Amer. Diplomacy (Pol. Sci. 7) or World Politics (Pol. Sci. 18)

### FOURTH YEAR

Prescribed Subjects

Foreign language continued Public Finance (Econ. 5) Political Ethics (Phil. 9) Seminar (Econ. 18) Commercial Law (Econ. 25) British Gov't (Pol. Sci. 21)

Suggested Electives Corp. Management (Econ. 10) Revolutionary and Napoleonic Era (Hist. 7)

Prescribed Subjects

Foreign language continued Econ. Development of Europe

Econ. Development of Europe
(Econ. 13)

Commercial Law (Econ. 25)

Continental European Governments
(Pol. Sci. 22)

Seminar (Econ. 18)

Suggested Electives

History of Latin America and the
Philippines (Hist. 27)

Europe in 19th Cent. (Hist. 20)

### COURSES IN JOURNALISM

Students who are preparing to enter the advertising or managerial sides of journalistic work should elect economics as a major and enroll in one of the business courses. The work they will take will then be selected under the advice of the proper instructors, according to the needs of the individual student and within the requirements for the College for graduation.

Students who are preparing for journalistic work on the reportorial, literary, or editorial sides should take their major work in English. They will make up their study schedules from the following suggested course. With the consent of the adviser, other courses may, for purposes of specialization, be substituted for suggested courses. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.

### Suggested Course in Journalism

(Major in English)

### FIRST YEAR

Prescribed Subjects	Prescribed Subjects	
Rhetoric   3   Physical training	Rhetoric 1 Physical training Military Suggested Electives History 1 Foreign language English 10 or science	1 2 4
SECOND	YEAR	
Prescribed Subject	Prescribed Subject	
Military	Military Suggested Electives News Writing (Rhetoric 12)	2
English 1 or science3 or 4 or 5 History of U. S. (His. 3)	Foreign language continued	3
Principles of Economics (Econ. 1) or Principles of Economics (Econ. 1)	Pol. Sc. 3) (4 or 3) or Money and Banking (Econ. 3)	3
	YEAR	ı
Intermediate English	Intermediate English	2 3 4 3

### FOURTH VEAR

100111	
Rhetoric 15 or English 14	Rhetoric 15 or English 14
History of U. S. (His. 21)	Social & Indust. Legis. (Pol. Sc.
Management and Finance, or La- bor Problems (Econ. 5 or 10 or	Industrial Consolidations, or Eco- nomic History of Europe or So-
12)	cialism and Social Reform

### HOUSEHOLD SCIENCE

Students who hold scholarships in household science must make this subject their major, and take each semester at least four hours in household science or in subjects required for admission to the household science courses. The suggested course in household administration is described below. Household science students who do not take that course must meet the following requirements:

First Semester-Physical Training 7, Physiology 6, Rhetoric 1, foreign language, Chemistry I, Household Science 2.

Second Semester-Physical Training 7, Rhetoric 1, foreign language, Household Science 1, Chemistry 2 and 3.

They must then elect in regular course and finish by the end of the junior year, Botany 5, Chemistry 13a, 9 and 9c, and an additional five hours in botany or zoology. In order to graduate, household science students must also secure credit for Art and Design I, Art and Design 12, Art and Design 19, and Economics 1.

Students in household science must also satisfy the requirements for graduation in the College of Literature and Arts, in so far as these are not covered by the courses above mentioned.

# Suggested Course in Household Administration

### FIRST YEAR

FIRST SEMESTER SECOND SEMESTER Rhetoric & Themes (Rhet. 1) Applied Design (Art & Design 12) Foreign language Physical Training Rhetoric and Themes (Rhet. 1)
Free Hand Drawing (Art & D. 1)
Home Architecture & Sanitation
(Household Science 2) Foreign language Physical Training Hygiene (Physiology 6) Introductory Zoölogy (Zoöl. 1) English (English 10) or Econ. Hist. of the U. S. (Econ. 22)

SECOND YEAR Inorganic Chemistry (Chem. 2) Qualitative Analysis (Chem. 3) Economic History of the Un States (Econ. 22) History of the United States Art and Design 19
Textiles (H. Sci. 7)
Inorganic Chemistry (Chem. 1)
Economic Resources (Econ. 26)
Suggested Electives Foreign language Introd. European Hist. or History of the United States (Hist. 1 or 3) General Floriculture (Hort. 19) (Hist. 3) Household Art and Clothing (Household Science 12)

THIRD YEAR

Economic Uses of Food (Household Science 6) Dietetics (Household Science 5) Elementary Psychology (Psych. 1) Physiology 4 (Minor course) Principles of Economics (Econ. 1)

Elementary Home Decoration (Household Science 3) Elementary Psychology (Psych. 2) Bacteriology (Bot. 5) History of Fine Art (Art & D. 19)

Home Management (Household Science 10) History of Home Economics (Household Science 13) Accountancy 1
Elementary Law (Pol. Sci. 17)
General Sociology (Soc. 1) Principles of Education (Edu. 1)

FOURTH YEAR Economics of the Family (Household Science 15) Ethics (Philos. 7)
Social Aspects of Education (Sociol. 26)

### COURSE PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thorough course in the humanities and the sciences. As a foundation for the study and practice of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology.

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. The following first year courses in the College of Law, not exceeding a total of 24 hours, may be counted for the degree of bachelor of arts: Law I (contracts); Law 2 (torts); Law 3 (real property); Law 4 (pleading); Law 5 (criminal law); Law 6 (personal property). Law I may count for six hours only, Students are not permitted to take this work in law until their senior year. If the student is also a candidate for the degree of LL.B., or J.D., he should in his fourth year register in the College of Law, pay the usual fee of that College, and file a copy of his study-list with the adviser for seniors in this College. A fee of five dollars is charged for every law subject taken by students who do not pay the regular law school fee.

Courses in law do not in themselves constitute a major in this College, but six hours of law are accepted as part of the requirements for majors in the following departments: economics, history, political science, and sociology.

When taken by students registered in the College of Law, credit to a total of six hours toward the degree of LL.B. is accepted for courses offered by the College of Literature and Arts in jurispruHonors 145

dence, international law, administrative law, and the law of taxation.

The degree of Bachelor of Arts is conferred at the close of the fourth year of the combined course providing that all the requirements for the degree are met at that time.

Candidates for the degree of Doctor of Law (J.D.) must take four hours in history, economics, political science, or sociology, in the fourth year of their course.

Students admitted to this University from other institutions may count the above courses in law for the degree of A.B. only on condition of completing at least 30 hours' work in residence in subjects offered by the College of Literature and Arts.

### COMBINED ARTS AND ENGINEERING COURSE

A graduate of the College of Literature and Arts, whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of sixty-eight credit hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing. The courses in the College of Engineering which may be counted for the degree of A.B. are listed on page 132 above.

### PREPARATION OF TEACHERS

For information concerning preparation of teachers and the recommendation of the University committee on appointments see page 214.

### HONORS

# The Honor Degree

The faculty of the College of Literature and Arts recommends candidates for the degree of A.B. with honors in a particular subject, under the following conditions:

1. The amount of work required in the honor subject shall be that required for a major in that subject.

- 2. The candidate must also offer two minor subjects. Not less than 9 hours will be accepted in either subject, and the aggregate for both subjects must be at least 24 hours.
- 3. The work done in the minor subjects must be of a distinctly superior quality; grades of at least 85 are required in all the minor subjects; especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.
- 4. Each candidate is required to present an acceptable thesis in his major subject; the thesis may be written in connection with some recognized course in the department.
- 5. The honor subjects at present recognized in this College are as follows: The classics (either the classics as a whole, or Greek or Latin separately), economics, education, English, German, French, history, mathematics, philosophy, political science, psychology, sociology. The specific requirements for honors in particular subjects are stated in connection with the description of courses for the several departments, pages 255ff. below.

The purpose of these honors is not to encourage premature specialization, but to give special recognition to students who have pursued with success carefully correlated courses of study, and to emphasize the importance, for scholarship in any given subject, of thorough training in other more or less related subjects. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

# Preliminary Honors

The University regulations regarding preliminary honors are stated above, page 106.

# Freshman Honors

At the close of each year a list of those members of the freshman class who have made an especially good record in scholarship is prepared. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

# Honorary Societies

For information concerning the honorary societies represented in the University, see page 113.

# THE COLLEGE OF SCIENCE

For a description of the buildings used by this College, see page 54; for collections belonging to it (botany, entomology, geology, and zoology), see page 64; for a summary of its courses, see page 72; for clubs and societies auxiliary to its courses of study, see page 114; for honors, see page 106; for honorary societies, see page 113; for fees, see page 122.

### **PURPOSES**

The College of Science offers two distinct groups of courses. The purpose of the first group is to furnish a well balanced general education as a preparation for distinctly professional studies, for teaching, or for business life. These courses require major work in at least one branch of science<sup>1</sup>, but also require work in some foreign language and in other literary or philosophical subjects. The courses of this group lead to the degree of Bachelor of Arts.

The courses of the second group are more technical in character and are designed to prepare students for a professional career of a specific character. In these courses but little opportunity for elective studies can be offered. Upon completion of the course the degree of Bachelor of Science, usually with a special designation, is given.

A portion of the work of a student registering in this College may be selected, in accordance with the provisions described in the following pages, from the offerings of the other colleges or schools of the University.

### **ADMISSION**

See the general statement of the entrance requirements of the University, page 75.

<sup>&</sup>lt;sup>2</sup> For list of Majors, see page 150.

### SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 83.

# COURSES LEADING TO THE A.B. DEGREE

The courses of study leading ordinarily to the degree of Bachelor of Arts are the General Course in Science and the Course Preparatory to Medicine. Attention is called also to the combined courses in Science and Engineering. A similar combination can also be made in Science and Agriculture.

### GENERAL COURSE IN SCIENCE

To graduate from the General Course in Science the following requirements must be fulfilled:

- 1. The student must complete the work indicated in the prescribed list, except that physics and chemistry will not be required of students who have had one-year courses in these subjects in an accredited high school or acceptable equivalent courses elsewhere.
- 2. There must be obtained from the five groups of electives the number of hours' credit mentioned under each group. The physics and chemistry of the prescribed list may be applied on the requirements of Groups 1 and 2. Students who have had three years of work in foreign language in an accredited high school, or an equivalent course elsewhere, will be relieved from the requirement of Group 4. Those who have had one year or two years of high school language may be relieved from 4 hours or 8 hours respectively of the requirement of Group 4. No credit is given for a part of the first university year of any language.
- 3. A total credit of at least 20 hours must be secured in some one of the divisions of the major elective list. Not more than 40 hours' work (exclusive of thesis) in any one of these divisions may be applied toward graduation. In arranging the subjects to be counted toward the major requirement the student is advised to consult with the head of the department in which the major is taken.
- 4. The student must secure enough additional credits from the general elective list to complete the graduation requirement of 130 hours.

# GENERAL CLASSIFICATION OF SUBJECTS

### PRESCRIBED LIST

Chemistry I
Physics 2a, 2b (or 1, 3)
Rhetoric 1\*
Military Science 1, 2
Physical Training—
Men, 1, 3

Women, 7, 9

GROUP ELECTIVES

### Group 1. 8 hours required

Mathematics
Physics
Astronomy
Logic (Philosophy I)
Mineralogy (Geology 5)

### Group 2. 8 hours required

Chemistry
Geology
Household science
Bacteriology (Botany 5)

# Group 3. 8 hours required

Botany Zoology Physiology Psychology Entomology

Education

# Group 4. 16 hours required Foreign language

# Group 5. 8 hours required English literature History Political science Economics Philosophy

<sup>\*</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 81.

### MAJOR ELECTIVES

Astronomy
Botany
Chemistry
Education
Entomology or zoology
Geology (including mineralogy and physical geography)
Household science
Library science
Mathematics
Physics
Physiology
Psychology
Zoology or entomology

### GENERAL ELECTIVES

The subjects offered as general electives include not only those branches given by the departments of this College, but also those in history, economics, languages, literature, and philosophy, given in the College of Literature and Arts; those in agronomy, animal husbandry, and horticulture, given in the College of Agriculture; and certain courses given in the College of Engineering and in the Library School afford abundant material from which elections may be made.

Approximately one-third of the work to be counted toward graduation may be selected, subject to the approval of the Dean, from the subjects given in other colleges of the University, if the student so desires.

### THESIS

A thesis course may be taken in any department (subject to the approval of the head thereof) in which the student has done 20 hours of major work preceding his senior year. Students desiring to take a thesis course in geology or mineralogy may add to their credits in those subjects the credits received for chemistry; and students in physiology may add to their credits in that subject those in zoology and bacteriology. Only students graduating with a thesis will, as a rule, be selected for fellowships, scholarships, and other similar university honors. Candidates for special honors are required by the general regulations of the University to write a thesis.

### PROSPECTUS OF COURSE IN SCIENCE

### FIRST VEAR

Fifteen to eighteen hours a week, including military and physical training, must be chosen each semester.

Military science and tactics are required of all male students. Drill extends through the freshman and sophomore years, and tactics through the second semester of the freshman year.

Physical training is required of all freshmen, men and women, two hours for men and three hours for women.

The following subjects are open to freshmen:

### FIRST SEMESTER

Chemistry 1; Rhetoric 1; Military 2; Prescribed Subjects1: Physical Training 1 and 1a for men; 7 and 9 (Physiology 6), for women.

Group 1: Astronomy 1: Mathematics 2. 4.

Group 2: Chemistry 1a. Chemistry 3 (for those who have had Chemistry I or its equivalent); Geology I, 3, 52, 14, 23; Household Science 2.

Group 3: Botany 2, 4, 11; Entomology 1; Physiology 4;

Group 4: French 1; German 1, 4 (for those offering two units for entrance); Greek I, 3, 5, 7; Latin I (for those offering three units for entrance): Spanish 1.

Group 5: Economics 7, 26; History 1.

General Electives: See statement on page 150.

### SECOND SEMESTER

Prescribed Subjects: Rhetoric 1: Military 1, 2: Physical Training I and Ia, for men; 7 and 9 (Physiology 6), for women.

Group 1: Astronomy 4: Mathematics 3a, 6.

Group 2: Chemistry I, 1a, 2, 3, and 13a (after Chemistry 2 and 3); Geology 1a, 63, 8, 10, 12; Household Science 1.

Group 3: Botany I, 16; Entomology I, 3; Zoology 2, I, 16. Group 4: French 1; German 3, 5, 6 (after German 4); Greek I, 4, 6, 8; Latin I: Spanish I.

Group 5: Economics 22, 26; History I, II. General Electives: See statement on page 150.

<sup>&</sup>lt;sup>1</sup> See page 148, requirement 1. <sup>2</sup> Prerequisite: Chemistry. <sup>8</sup> Prerequisite: Geology 5.

### LIBRARY SCIENCE

Library science has been added to the list of major electives to meet the needs of those who are preparing for positions in scientific libraries, but are unable to complete the course as outlined in the Library School.

### PREPARATION OF SCIENCE TEACHERS

To graduate with a preparation for the teaching of science in the secondary schools, the student must meet the requirements of the general science course, choosing his major in that group containing the subjects which he wishes especially to teach, and adding Education 1, 3, and 7, Psychology 1, Philosophy 1, and at least four hours more in education or psychology.

As to the amount and the character of the work which should be taken in the major subject and those allied to it, the student should consult with the head of the department in which the principal work is taken. See also the circular of the School of Education.

### COURSE IN SCIENCE AND ENGINEERING

A graduate of the College of Science whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering upon the completion of 68 semester hours of work in engineering (including thesis) under the direction of the faculty of the College of Engineering. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

### HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of three classes of students: (a) those students who specialize in other lines of work, but desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science for the purpose of teaching the subject in secondary schools and colleges; (c) those students who wish some knowledge of the principles underlying the work of dietitians.

Household science may be taken as a major in the College of Science by meeting the requirements concerning majors as prescribed in the General Course in Science. Holders of scholarships in household science may take the subject as a major or may take the following suggested course, arranged especially to meet the needs of those preparing to teach the subject.

Students who have had three years of work in foreign language in an accredited high school, or an equivalent course elsewhere, will be relieved from the requirement of 16 hours of foreign language. Those who have had one year or two years of high school language may be relieved from 4 hours or 8 hours, respectively, of this requirement. No credit is given for a part of the first university year of any language.

The student must secure enough additional credits from the general elective list as described in the General Course in Science to complete the graduation requirement of 130 hours.

# Suggested Course for Teachers of Household Science

	FIRST Y		
FIRST SEMESTER	S. H.1	SECOND SEMESTER	S. H.1
Chemistry 1	5 5 5	Household Science 1 Chemistry 2 and 3 Rhetoric 1 Mathematics 4 Art and Design 1 Physical Training 7	3 
	17		16
Chemistry 13a		YEAR Chemistry 9 and 9c	3
	17		14
	THIRD	YEAR	14
Physiology 4	5 4 2	Household Science 3	3
	15		15
	FOURTH	YEAR	
Household Science 4		Household Science 11	
Household Science 13	1	Electives	
Electives			
	15		15

The following subjects are suggested as electives for the junior and senior years: Psychology 1, 2; Botany 1; foreign language.

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

### COURSE PREPARATORY TO MEDICINE

The following course of three years' work, outlined for persons who are preparing for the study of medicine, includes the subjects offered in the first year of a standard course in medicine, with the exception of anatomy, together with the two years' work in arts and general science which is now required for admission to the better medical schools. It is intended to prepare students to enter upon the work of the second year of the professional course in medicine.

A student who has completed the course outlined below and who then completes a year's work in medicine in a recognized medical school, including work in human anatomy, the physiology of the special senses and of the nervous system, therapeutics, general pathology, pathological anatomy, and surgical pathology, may receive credit by transfer for this year of medical work, and thus receive the degree of Bachelor of Arts from the University of Illinois. Under this plan the student may ordinarily obtain the two degrees of Bachelor of Arts and Doctor of Medicine with six years' work, and is able to go more deeply than would otherwise be possible into the fundamental sciences upon which medical studies are based.

# Course Preparatory to Medicine

PIR51	
First Semester	SECOND SEMESTER
S. H. <sup>1</sup>	S. H. <sup>1</sup>
General Chemistry (Chem. 1)	Descrip. Inorg. Chem. (Chem. 2)
Physical Training 1	Physical Training 1
Total17 SECOND	Total
S. H.   Zoology 3   4   Zoology 3   4   2   4   5   5   6   6   6   6   6   6   6   6	S. H.   S. H.   S. H.   S. H.   4   Zoology   3.   3   3   3   3   3   3   3   3
Total	Total17
THIRD S. H.  German. 4	YEAR       S. H.         German 5 or 6
Total19	Total19

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257. <sup>2</sup>If Latin has not been offered for entrance.

### FOURTH YEAR

Students who can afford it would do well to spend a fourth year in continuing this course. For such students no group requirements are prescribed—each is given free choice in selecting what he needs to round out his general education, or to prepare to specialize in some line of his future work; a selection from the following courses is recommended: Bacteriology; Chemistry 5b, 5c, 9a, 9b, 14, 21, 22, 31, 105, and 106; Entomology 2, 3; Physiology 5; Psychology 113; Zoology 7, 8, 13, 13a; modern languages; and studies included in Group 5 of the general course in science. Upon the completion of this fourth year, the student takes his baccalaureate degree before going to the college of medicine.

### COURSES LEADING TO THE B.S. DEGREE

The following courses of instruction in this College lead ordinarily to the degree of Bachelor of Science.

### COURSE IN CERAMICS

To graduate in ceramics the student must follow one of the courses outlined below. The conditions are such that little election can be allowed.

Special courses will be arranged for those who wish a limited amount of work in ceramics, but those pursuing them will not be entitled to a degree and will not be recognized as graduates.

### Course in Ceramics

### FIRST YEAR FIRST SEMESTER SECOND SEMESTER S. H.1 Chemistry 2 & 3 5 Analyt. Geom. (Math. 6) 5 Descript. Geom. (G. E. D. 2) 3 Rhetoric 1 3 .....5 Trig. (Math. 4) 2 Gen. Eng. Drawing I 3 Rhetoric I 3 Mil. & Phys. Tr. 1, 1a 2 Mil. & Phys. Tr. 1a..... 18 SECOND YEAR Physics 1 & 3..... Physics 1 & 3...... 4 16

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

German 4 or French 1 or 2	German 6 or French 1 or 2
Drying & Burning (Cer. 4)	Thesis (Cer. 11)
Course in Ceram	
FIRST	
FIRST SEMESTER  Chemistry 1	SECOND SEMESTER  Chemistry 2 & 3
18   SECOND	YEAR   Physics 1 & 3
16	18.
THIRD  German 4 or French 1 or 2	YEAR       German 6 or French 1 or 2
COURSE IN	
COURSE IN	

A student may pursue a course in general science having chemistry as a major subject by conforming to the group requirements as outlined on page 148. Upon the completion of the course the candidate is granted the degree of Bachelor of Arts.

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

For the more specialized training of the chemist the following course, largely prescribed, has been arranged. It leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German equivalent to two years of high school work or one year of university work is advised. Students who are unable to offer this may take German 1 and 3 in the freshman year, but will be required to take German 4 and 5 or 6 in place of other electives.

# Course in Chemistry

	FIRST	YEAR
FIRST SEMESTER		SECOND SEMESTER
	S. H. <sup>1</sup>	S. H. <sup>1</sup>
(Chem. 1)		Analytical Geometry (Math. 6) 5
(Chem. 1)	5	Descriptive Inorganic Chemistry
Trigonometry (Math. 4)		(Chem. 2)
Advanced Algebra (Math. 2) German 4		German 5 or 6 4
Military (Mil. 2)	1	Military (Mil. 2)
Gymnasium (Phys. Tr.)		Drill Regulations (Mil. 1)
0)		Gymnasium (Phys. Tr.)
		_
Total	16	Total17
	SECOND	YEAR
	S. H.	S. H.
French 1	4	French 1 4
Quantitative Anal. (Chem. 5a)		Advanced Anal. Chem. (Chem. 5b) 5
Physics 1, 3		Rhetoric 1
Rhetoric 1	3	Physics 1, 3 4
Military (Mil. 2)	1	Military (Mil. 2) 1
Total	10	Total17
10141		
		YEAR
	S. H.	S. H.
Mineralogy (Geology 5) Organic Chemistry (Chem. 14,	007 5	Organic Chemistry (Chem. 14, 9b) 5
Seminar (Chem 93)	1	Physical Chem. (Chem. 31, 33) 5
Seminar (Chem. 93) Economics	2	Seminar (Chem. 93)
Differential and Integral C	alcu-	Electives 3
lus (Math. 8a)		English 1 or History 3 4
	-	<del>-</del>
Total		Total18
	FOURTH	YEAR
	Hours	Hours
Seminar (Chem. 93)		Seminar (Chem. 93) 1
Thesis		Ind. Chem. (Chem. 61)
Electives in Chem	-	Thesis 5
Elastinos bistama comunica a		Elections
Electives, history, economics o	r	Electives 8
Electives, history, economics o equivalent	r	Electives 8

The electives of the junior year and ten hours of the electives of the senior year must be taken elsewhere than in the chemistry department. Some biological subject, philosophy, history, and economics are recommended.

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

### COURSE IN CHEMICAL ENGINEERING

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects essential. To meet these conditions, the following four-year course in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical engineering.

Preliminary preparation in German equivalent to two years of high school or one year of university work is *prescribed*. It is also advised that students intending to take this course be prepared to offer mechanical drawing and manual training for entrance.

Where this preliminary training is lacking, students are advised, if possible, to register in shop work and general engineering drawing during the early years of their course.

### Course in Chemical Engineering

FIRST SEMESTER  General Elementary Chemistry (Chem. 1)	SECOND SEMESTER   S. H.1
Total16	Total17
SECOND   S. H.	YEAR       S. H.         Analytical Mech. (T. & A. M. 7) 3         Advanced Analytical Chemistry         (Chem. 5b) 5         Rhetoric 1 3         Physics 1, 3 4         Military (Mil. 2) 1         Total 16
THIRD	YEAR
S. H.  Gas and Fuel Anal. (Chem. 65) 2 Mineralogy (Geol. 5) 5 Analytical Mech. (T. & A. M. 8) 2½ Resistance of Materials (T. & A. M. 9) 3½ Organic Chem. (Chem. 14, 9a) 5 Seminar (Chem. 93) 1	S. H. Inorganic Preparation (Chem. 61) 2 Physical Chem. (Chem. 31, 33) 5 Organic Chem. (Chem. 14, 9b) 5 Chem. Technology (Chem. 6) 2 Seminar (Chem. 93)
Total19	

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

FOURT	H YEAR
Assaying (Chem. 69)	Electives in Chemistry
lent       3         Metallurgy (Chem. 7)       2         Thesis (Chem. 11)       5         Seminar (Chem. 93)       1	(M. E. 11) 3 E. E. 1 2 Seminar (Chem. 93) 1 Economics or Philosophy 3
Totals16	17

# THE COLLEGE OF ENGINEERING

For a description of the buildings occupied by this College, see page 56; for collections belonging to it (architecture, civil engineering, electrical engineering, and mechanical engineering), see page 66; for clubs and societies auxiliary to its courses of study, see page 114; for fees, see page 122; for honors, see page 106; for honorary societies, see page 113.

### GENERAL STATEMENT

The purpose of the College is to train young men for the profession of engineering. In arranging its courses of study and practice, cultural subjects are interwoven with the strongly theoretical subjects which underlie and reinforce the more practical developments of the several departments. The instruction of the classroom and the practice afforded by the library, the drafting-room, and the laboratory proceed hand in hand. Throughout his course the student works upon problems and proceeds by methods similar to those which enter into the experience of the practicing engineer.

### ADMISSION

See the general statement of the entrance requirements of the University, page 75.

### SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 83.

### DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments: Department of Architecture, with courses in—

Architecture

Architectural Engineering

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT OF MINING ENGINEERING

DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING
DEPARTMENT OF THEORETICAL AND APPLIED MECHANICS
DEPARTMENT OF PHYSICS
DEPARTMENT OF RAILWAY ENGINEERING, with courses in—
Railway Civil Engineering
Railway Electrical Engineering
Railway Mechanical Engineering

### ARCHITECTURE

The department of architecture offers two courses leading to the first degree, the course in architecture and the course in architectural engineering. The aim of these courses is to give the broadest preparation for the practice of architecture.

The course in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule of studies includes a broad field of liberal and scientific subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction. The course also includes much free-hand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skillful and rapid drawing. The main portion of the course, however, consists of the study of architectural forms and principles and their application in architectural design.

The course in architectural engineering gives a thorough ground-work in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The general principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural engineering. While specializing in construction, this course includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing, and architectural design.

Both courses in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates of the department are exempt from examinations

<sup>&</sup>lt;sup>1</sup> The School of Railway Engineering and Administration offers, in addition of the three courses named here, courses in railway transportation and railway traffic and accounting under the direction of the department of economics of the College of Literature and Arts. See pages 139 and 140 above.

required for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize amounts to \$1,000 and provides for one year of travel for the study of architecture abroad. It is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

### EQUIPMENT

The collections of rendered and working drawings, lantern slides, plates, photographs, casts, specimens of American woods, building materials, and appliances are noted under "Collections" on page 66. A Zeiss epidiascope is used for direct projection of photographs, colored plates, etc., and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light fixed at the conventional angle for demonstration of the subjects of shades and shadows and conventional rendering. Extensive wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and a collection of instructive and interesting drawings is constantly displayed. The department occupies the entire fourth floor of Engineering Hall, and a large part of the third: its quarters include drafting rooms for undergraduate and graduate work, library, lecture rooms, studios for free-hand drawing, etc.

### CIVIL ENGINEERING

The purpose in this department is to furnish a course of theoretical instruction, accompanied and illustrated by a large amount of practice. While the instruction aims to be practical by giving the student information and practice directly applicable in his future professional work, the prime object is the development of the mental faculties. The power to acquire information and the ability to use it are held to be of greater value than any amount of so-called practical knowledge.

### EQUIPMENT

This department has an equipment of compasses, engineers' transits, solar transits, levels—ordinary and precise—plane tables, sex-

tants, chronometers, barometers, etc. The department is also provided with a collection of structural shapes, including full-sized joints of an actual railroad bridge, sections of columns, I-bars, etc., and with lithographs, photographs, and blue-prints of bridges and buildings.

The cement laboratory occupies rooms in the Mechanical Engineering Laboratory, and is provided with slate tables, testing machines, molding machines, sieves, etc., and sample barrels of hydraulic cement, varieties of sand, and other necessary materials.

The road laboratory occupies a room in the Mechanical Engineering Laboratory, and is provided with machines for testing the resistance of macadam material to impact and abrasion and for making the cementation test. The laboratory is also supplied with rattlers and other devices for testing paving material.

### ELECTRICAL ENGINEERING

This department provides a course of study in theoretical and applied electricity. The first two years of work are substantially the same as in the other engineering courses, including practical work in drafting room and shop, as well as instruction in the fundamental principles of mathematics and physics. With the third year the fundamental studies relate more directly to electrical engineering. A course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize underlying principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamo characteristics is followed in the fourth year by progressive experiments involving the operation of electrical machinery in principle and practice. Investigation of the problems of power distribution is a feature of advanced laboratory and thesis work.

# EQUIPMENT

The 500 kilowatt power plant of the University supplies the electrical engineering laboratory with the current needed for its operation.

The power equipment in the electrical engineering laboratory includes forty direct current machines with a total capacity of 375 kilowatts, twenty alternating current machines with a total capacity of 300 kilowatts, and fifty transformers with a total capacity of 350

kilowatts. A 17-panel experimental switchboard affords adequate distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types. There are two hundred and fifty portable instruments for experimental work. A new 240-ampere-hour storage battery has been installed. The graduate laboratory contains much apparatus for research work, including four oscillographs, one 2000-cycle alternator, one 200,000-volt transformer, and apparatus for high voltage direct current investigations. The photometer room contains apparatus for tests of the various light sources. Two special 100-line switchboards are connected with cables and apparatus for experiments in telephony. The equipment for electrometallurgical work includes one 30-kilowatt induction furnace, one 25-kilowatt are furnace, two 30-kilowatt resistance furnaces, and an annealing furnace.

### MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practice involved in the generation and transmission of power, and in the design, construction, operation, and testing of machinery of all kinds.

# EQUIPMENT

To supplement and amplify the theoretical work of the class room, the department is provided with designing rooms and laboratories as follows:

The Designing Rooms are equipped with drawing tables, and are supplied with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialties, lantern slides, and photographs is also available.

The Mechanical Engineering Laboratory is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating, and ventilation. Among the more important pieces of apparatus are the 210 h. p. experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; a number of types of throttling, high speed automatic, and Corliss steam engines; several steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam

turbine; a DeLaval turbo-pump; a 200,000 lb. Lea water-flow; a 10-ton ammonia compression refrigerating machine; a number of typical gas, gasoline, and oil engines; a 50 h. p. suction gas producer, and several house-heating boilers and furnaces. The central heating and power plant contains a variety of types of boilers, stokers, pumps, and engines in commercial service.

The Shop Laboratories are provided with suitable machinery and apparatus to illustrate the several shop processes involved in the manufacture of machinery. In these laboratories emphasis is given to the engineering principles involved in machine construction and to the important problems of scientific shop management. These laboratories include the Wood Shop with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the Foundry equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the Forge Shop equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the Machine Shop with an equipment of lathes, planes, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

# MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of engineering.

The Laboratory of Applied Mechanics comprises the materials testing laboratory and the hydraulic laboratory. The materials laboratory is equipped with testing machines for tension, compression, flexure, and torsion, and for testing various kinds of structural materials. The equipment includes a testing machine having a capacity of 600,000 pounds, arranged to take large and bulky pieces in tension, compression, and flexure. The hydraulics laboratory has a standpipe, pumps, water motors and turbine, measuring pits, Venturi meters, weir conduits, meter rating conduit, orifice boxes, weir boxes, and apparatus for experimental work on flow of water through pipes, hose, and nozzles. The University pumping station furnishes a supply of water at pressures up to 100 pounds a square inch.

### MINING ENGINEERING

The department of mining engineering offers courses of instruction relating to the science and practice of mining and metallurgy to train young men for the various phases of mineral industry. The work of the department adds to the usual courses in mathematics, languages, chemistry, physics, geology, and general engineering, specialized work in mining, such as mine surveying, mine ventilation, mining machinery, coal washing, and ore concentration, metallurgy, administration and organization of mines, mining law, and the design of mining and metallurgy structures.

In addition to its work of instruction, the department concerns itself with the development and dissemination of such scientific facts as are likely to be of service in improving the practice of mining, with reference to efficiency in operation, to the security of life in the mines, and to the conservation of the fuel and other mineral resources of the state.

### EQUIPMENT

The drawing rooms contain the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine drafting, models of mine structures, and a collection of blue prints and drawings of mine structures.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking appliances, a dark room for photometric work, an Oldham safety-lamp testing apparatus, and appliances for gas and dust analysis.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500-pound 3-stamp battery; for screening and sizing, trommels, shaking and vibrating screens, and V boxes; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, concentrating table, and slimer. These machines can handle from 3 to 5 tons of coal and one ton of ore an hour. There is also a complete sampling and drying equipment, a cyanide testing plant, and other small appliances used for preliminary testing. Adjoining this laboratory is a chemical and assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains the principal types of rock drills, coal cutters, and a complete outfit for demonstrating the use of explosives.

# MINE RESCUE STATION AND LABORATORIES

Coöperating with the department of mining engineering and with the State Geological Survey, the Federal Government has established at the University a mine rescue station. The purpose

of the station is to interest all connected with the mining industry in such modern appliances as breathing and resuscitation apparatus as part of the normal equipment of mines. At the station mine bosses and others are trained in the use of such apparatus, this service being rendered freely to all who may desire the benefits thereof.

The station offers to the student in mining engineering an opportunity for studying rescue and first aid work. Students are brought into contact with men in practice from all parts of Illinois and surrounding states who come to the station for training. About the present station as a nucleus other laboratories for experimental work in connectior with mining are being developed, and are accessible for the use of students in mining engineering.

A laboratory is maintained jointly by the department of mining engineering, the State Geological Survey, and the United States Bureau of Mines for the study of mine dusts and mine gases. It is also available for the purpose of demonstration to university classes.

### MUNICIPAL AND SANITARY ENGINEERING

This course is designed to train for the varied duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering course. Chemistry and bacteriology are given so far as is necessary to a comprehension of the questions involved in water supply and sewage disposal; and instruction is given in mechanical and electrical engineering in the generation and transmission of power.

### PHYSICS

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus for the courses of instruction offered and also for advanced work, and only

a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for the advanced students and instructors, and one for the mechanician of the department. The students' shop is equipped with lathes, drill press, bench tools, etc. The mechanician's shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains all the important sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopædias, dictionaries, and other reference books, are also found in the special library of the Laboratory.

### RAILWAY ENGINEERING\*

The department of railway engineering is organized to serve those who wish to prepare themselves for service in the technical departments of railways. The course in railway civil engineering adds to the fundamentals of a well-rounded engineering course a group of special subjects which concern the design, construction, and maintenance of the various details entering into the construction of track, track structures, and systems of railway signaling. The course in railway electrical engineering emphasizes the design and construction of those details peculiar to electric railway lines; the operation and performance of electric cars and locomotives; and the development of the more general problems which arise in the electrification of existing steam lines. The course in railway mechanical engineering is intended to meet the requirements of those who are especially interested in steam railroad equipment. It deals with the design, construction, and maintenance of various types of railway cars; with conditions affecting train resistance; with the design and operation of steam locomotives; and with tests disclosing their performance.

### EQUIPMENT

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Wabash railroads—and an electric interurban road—the Illinois Traction System—enter Champaign and Urbana. The department enjoys the interest and coöperation of the officers of these railways, and is afforded by their courtesy

<sup>\*</sup> See also School of Railway Engineering and Administration, page 216.

numerous opportunities for practical road tests and field work. The division shops of the C., C., C. & St. L. railroad are located at Urbana and provide additional opportunity for similar work.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is fully equipped for making train resistance and locomotive performance tests, and during the last ten years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the interurban type, especially designed and built for the University for experimental work. It is equipped with four 50 horse-power direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed acceleration, and the other data needed in road tests. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of the Master Car Builders' Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears, and may be used in studies of the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

A locomotive testing plant, equipped from the original designs of the department, occupies a building 40 by 115 feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive which at all times shall be of latest design.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

### SUGGESTED ELECTIVES

The following courses are suggested as electives for students in the College of Engineering whose time is not fully occupied with required work:

Accountancy, Art and Design 1; Astronomy 3 and 6; Chemistry 2, 3, 16, 31, 34, 35; economics; Geology 13; Mathematics 9a, 10, 16, 21a, 22a; Rhetoric 3, 7, 10, 13; Physics 15, 16, 17; Political Science 17; Library 12; Architecture 43, 44, 55, 57; Civil Engineering 4a, 5, 21, 22; Electrical Engineering 1, 2, 5, 6, 16, 29; Mechanical Engineering 7, 27, 30, 31; Railway Engineering 11, 61; for students of architecture, History 1, 9; landscape design; French and German.

### SUMMER READING

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshman and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as a practical aid to engineers in their social and business relations.

A circular on summer reading is issued, containing a list of books from which the students may choose. The books have been selected for their value in providing general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

### GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young engineers, will be given each week. All freshman engineers are expected to attend this lecture.

### TRIPS OF INSPECTION

The departments of the College of Engineering arrange trips of inspection for their students, to supplement the theoretical instruction of the classroom. The time occupied by the trip is three or four days, and the works visited are usually in Chicago or Milwaukee. The trips are taken during term time under the supervision of Uni-

versity authorities. The inspection trip forms an integral part of the course, and it is expected that all students eligible will participate. Students can be excused from attendance by the head of the department only, and if so excused, they are required, during the period occupied by the trip, to perform a set schedule of work approved by the head of the department. Students whose standing is such that they can ill afford to take the time from their academic duties may be required to remain at the University.

Each student who participates in a trip is required to make a report or submit to an examination upon the work inspected.

## COURSES OF STUDY AND DEGREES

The courses of study leading to the degree of Bachelor of Science in the College of Engineering, as scheduled for the year 1912-1913, are given herewith in full. Each of the ten courses given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied course upon the completion of from thirty to thirty-six semester hours of work (including thesis) approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the Colleges of Liberal Arts of the University of Illinois, or of any college of equal standing, whose mathematical training includes the work of the calculus, who has had the usual course in physics, and who has had sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering upon the completion of sixty-eight credit hours of work in engineering (including thesis) under the direction of the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

## Course Required for Degree of B. S. in Architecture

FIRST SEMESTER	SECOND SEMESTER
S. H. <sup>1</sup>	S. H.1
Math. 42—Trigonometry	Chem. 1a³ or 1b—Inorg. Chem
Total18	Total18
SECONI	YEAR
Phys. 2a—Physics Lectures	Phys. 2a—Physics Lectures
Total18	Total18
THIRD	YEAR
French or German	French or German.       4         Arch. 16—History of Arch.       2         Arch. 26—Freehand Drawing.       2         Arch. 36—Design.       5         Arch. 46—Graphic Statics.       3         E. E. 9—Building Illumination.       1         Arch. 66—Theory of Arch.       1
Total18	Total18
FOURTE	I YEAR
Arch. 27—Freehand Drawing	Arch. 28—Freehand Drawing.       2         Arch. 38—Thesis.       7         Arch. 60—Special Lectures.       1         Arch. 68—Business Relations.       3         English literature.       3

Semester hours. For definition see page 257.
 The numbers refer to courses in the Description of Courses, page 255.
 Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for Degree of B, S. in Architectural Engineering

First Semester	SECOND SEMESTER
S. H. <sup>1</sup>	S. H. <sup>1</sup>
G. E. D. 12—Gen. Eng. Drawing	G. E. D. 2 <sup>2</sup> —Descriptive Geometry 4 Math. 6—Analytical Geometry 5 French 1, or German 3 or 5 or 6 or French 2, or Rhetoric 11, or Spanish 1 4 Arch. 8—Arch. Drawing, or M. E. 41 3 Mil. 2—Military Drill 1 Mil. 1—Drill Regulations 1 Phys. Tr. 1—Gymnasium 1
Total18	Total19
SECOND	YEAR
Math. 7—Differential Calculus	Math. 9—Integral Calculus       3         Phys. 1—Physics Lectures       2         Phys. 3—Physics Laboratory       2         Rhet. 1—Rhetoric and Themes       3         T. & A. M. 7—Analytical Mechanics       3         Arch. 44—Spec. & Wkg. Drwgs       3         Arch. 15a—Design       3         Mil. 2—Military Drill       1
Total19	Total20
THIRD	YEAR
T. & A. M. 6—Engin. Materials	T. & A. M. 10—Hydraulics       3         Arch. 5—Graphic Statics & Roofs       4         Arch. 6—History of Arch       4         Arch. 10—Estimating       1         Arch. 11—Arch. Seminar       1         M. E. 11—Steam Engines & Boilers       3         C. E. 10—Surveying       2
Total18	Total18
FOURTH	YEAR
Arch. 57a—Heating & Ventilation       3         Arch. 19—Arch. Engineering       3         Arch. 38—Thesis       1         Arch. 31a—Arch. Reading       1         Arch. 34a—Arch. Eng. Seminar       1         C. E. 12—Bridge Analysis       2         C. E. 13—Bridge Details       2         C. E. 24—Metal Structures       1         M. E. 32—Mech. Eng. Laboratory       1	Arch. 68—Business Relations
Total15	Total

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

<sup>2</sup> The numbers refer to courses in the Description of Courses, page 255.

<sup>3</sup> Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Civil Engineering!

FIRST SEMESTER	SECOND SEMESTER	
S. H. <sup>1</sup>	S. H. <sup>1</sup>	
G. E. D. 12—Gen. Eng. Drwg	G. E. D. 2—Descr. Geometry	
Total18	Total19	
	O YEAR	
Math. 7-Diff. Calculus 5	Math. 9-Integral Calculus 3	
Phys. 1—Physics Lectures	Phys. 1—Physics Lectures	
Phys. 3—Physics Laboratory	Phys. 3—Physics Laboratory 2	
Rhet. 1-Rhetoric and Themes 3	Rhet. 1—Rhetoric and Themes 3	
C. E. 21—Surveying 5	T. & A. M. 7—Analyt. Mech	
Mil. 2—Military Drill 1	C. E. 22—Top. Surveying	
	Mil. 2—Military Drill	
	Mil. 2—Military Diffi	
Total19	Total19	
THIRD	YEAR	
T. & A. M. 6—Eng. Matls	T. & A. M. 10—Hydraulics	
Total16	Total	
FOURTH YEAR		
C. E. 5r—Masonry Construction	C. E. 6—Masonry & Reinf.       2         Con. Design.       2         C. E. 14—Bridge Design.       5         C. E. 15—Adv. Bridge Anal.       2         C. E. 16—Eng. Cont. & Spec.       2         C. E. 25—Seminar       1         C. E. 30—Thesis.       2         M. & S. E. 3—Sewcrage.       3	
Total17	Total17	

<sup>&</sup>lt;sup>1</sup> Semester hours. For definition see page 257.

<sup>2</sup> The numbers refer to courses in the Description of Courses, page 255.

<sup>8</sup> Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a; those who have received credit for Chemistry 1a will register in Electrical Engineering 3 and 22.

## Course Required for the Degree of B. S. in Electrical Engineering

FIRST SEMESTER S. H. <sup>1</sup>	SECOND SEMESTER S. H. <sup>1</sup>	
G. E. D. 12—Gen. Eng. Drwg	G. E. D. 2—Descr. Geometry	
Total18	Total19	
SECOND	YEAR	
Math. 7—Diff. Calculus	Math. 9—Integral Calculus       3         Phys. 1—Physics Lectures       2         Phys. 3—Physics Laboratory       2         Rhet. 1—Rhetoric and Themes       3         T. & A. M. 7—Analyt. Mech       3         Chem. 3 1b or 1a—Inorg. Chem       4         Mil. 2—Military Drill       1	
Total19	Total18	
THIRD		
T. & A. M. 6—Eng, Matrls	T. & A. M. 10—Hydraulics. 3 E. E. 5—Alt. Currents. 4 E. E. 23—Elec. Eng. Lab. 2 Phys. 4—Elec. & Magn. Meas. 2 M. E. 13—Mech. Eng. Lab. 3 Math. 9a—Integral Calculus. 2	
Total18	Total16	
FOURTH YEAR		
E. E. 13—Seminar	E. E. 13—Seminar	
Total 16	Total 17	

Semester hours. For definition see page 257.
 The numbers refer to courses in the Description of Courses, page 255.
 Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B.S.in Mechanical Engineering

FIRST SEMESTER	SECOND SEMESTER	
S. H. <sup>1</sup>	S. H. <sup>1</sup>	
G. E. D. 12—Gen. Eng. Drawing	G. E. D. 2—Descr. Geometry	
Total18	Total19	
SECONI	YEAR	
Math. 7—Diff. Calculus	Math. 9—Integral Calculus	
Total19	Total	
THIRD YEAR		
T. & A. M. 6—Eng. Materials 1 T. & A. M. 8—Analyt. Mech. 2½ T. & A. M. 9—Res. of Materials 3½ M. E. 3—Power Meas. 2 M. E. 5—Mechanism 3 Math. 9a—Integral Calculus. 2 Chem.³ 1a or 1b—Inorg. Chem. 4	M. E. 7—Thermodynamics	
Total18	Total17	
FOURTH YEAR		
M. E. 6—Heat Engines       2         M. E. 8—Mech. of Machinery       3         M. E. 9—Mach. Design       3         M. E. 12—Mech. Lab       3         M. E. 19—Seminar       1         E. E. 6—Alt. Currents       2         Econ. 2—Prin. of Economics       2	M. E. 6—Heat Engines	
Total16	Total16	

Semester hours. For definition see page 257.
 The numbers refer to courses in the Description of Courses, page 255.
 Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Mining Engineering

FIRST SEMESTER	SECOND SEMESTER	
S. H. <sup>1</sup> G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing	S. H. <sup>3</sup> G. E. D. 2—Descr. Geometry	
SECOND	YEAR	
Math. 8a—Diff. & Int. Calculus	Phys. 1—Physics Lectures	
Total19	Total	
-		
THIRD	YEAR	
T. & A. M. 8—Analyt. Mech	Min. 4—Mine Surveying.       4         Min. 5—Mine. Vent.       3         C. E. 20—Graphic Statics.       2         M. E. 35—Steam Eng.       3         Geology 13—Engin. Geology.       5	
Total18	Total17	
FOURTH YEAR		
Min. 6—Mech. Eng. of Mines	Min. 7—Mine Admin. Organization and Law.       2         Min. 8—Mine Plans.       2         Min. 10—Min. Lab.       2         Min. 11—Thesis.       3         Geology 2.       3         E. E. 16—Dynamo Elec. Mach.       4         Total       16	
	10001	

Semester hours. For definition see page 257.
 The numbers refer to courses in the Description of Courses, page 255.
 Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Municipal and Sanitary Engineering

F C	C C
FIRST SEMESTER	SECOND SEMESTER
S. H. <sup>1</sup> G. E. D. 1 <sup>2</sup> —Gen Eng. Drawing	S. H. <sup>1</sup> G. E. D. 2—Descr. Geometry. 5  Math. 6—Analyt. Geometry. 5  French 1, or German 3 or 5 or 6, or English 2, or Rhetoric 11, or Spanish 1. 4  M. E. 41—Shop Practice. 3  Mil. 2—Military Drill. 1  Mil. 1—Drill Regulations. 1  Phys. Tr. 1—Gymnasium. 1  Total 19
SECONI	) YEAR
Math. 7-Diff. Calculus 5	Math 9_Integral Calculus 3
Phys. 1—Physics Lectures	Math. 9—Integral Calculus
Phys. 3—Physics Laboratory	Phys. 3—Physics Laboratory
Rhet. 1-Rhetoric and Themes 3	Rhet. 1—Rhetoric and Themes 3
C. E. 21—Surveying 5	T. & A. M. 7—Analyt. Mech
Mil. 2—Military Drill 1	C. E. 22—Top. Surveying 4
	C. E. 23—Railroad Curves
	Mill. 2—Military Dilli
Total19	Total19
THIRD	YEAR
T. & A. M. 6-Eng. Materials 1	T. & A. M. 10—Hydraulics
T. & A. M. 8—Analyt. Mech	C. E. 1—Road Engineering
M. & S. E. 5a—Bacteriology 2	C. E. 20—Graphic Statics
C. E. 4a—R. R. Surveying 3	Chemistry 2, 3 and 10b—Qual. &
Chem 8 1b or 12-Thoronia	Water Analysis
Chemistry 4	E. E. 1—Elec. Eng
Total16	Total17
FOURTH	
M. & S. E. 2—Water Supply Eng4 M. & S. E. 6a—Water Pur., Sewage Disp. & Gen. Sanitation 3 C. E. 5—Masonry Constr 5 C. E. 12—Bridge Analysis 2 C. E. 13a—Bridge Details	M. & S. E. 3—Sewerage
	M. E. 13—Mech. Eng. Lab
Total	Total

Semester hours. For definition see page 257.
 The numbers refer to courses in the Description of Courses, page 255.
 Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Railway Civil Engineering1

FIRST SEMESTER	SECOND SEMESTER S. H. <sup>2</sup>
G. E. D. 18—Gen. Eng. Drawing 4 Math. 4—Trigonometry	G. E. D. 2—Descr. Geometry
Total18	Total19
SECON	D YEAR
Math. 7—Diff. Calculus	Math 9—Integral Calculus       3         Phys. 1—Physics Lecture       2         Phys. 3—Physics Laboratory       2         Rhet. 1—Rhetoric and Themes       3         T. & A. M. 7—Analyt. Mech       3         C. E. 22—Top. Surveying       4         C. E. 23—R. R. Curves       1         Mil. 2—Military Drill       1
Total19	Total19
THIRD	YEAR
T. & A. M. 6—Eng. Materials 1 T. & A. M. 8—Analyt. Mech 2½ T. & A. M. 9—Res. of Materials 3½ C. E. 4—R. R. Surveying 5 Chemistry <sup>4</sup> 1b or 1a—Inorganic Chemistry	T. & A. M. 10—Hydraulics
Total16	Total18
FOURTE	YEAR
R. E. 33—Econ. Theory of Ry. Loc. 4 R. E. 35—Signal Eng	R. E. 30—Thesis 3 R. E. 32—Ry. Structures 2 R. E. 50—Seminar 1 Econ. 42—Ry. Admin. 3 C. E. 6—Mas. & Reinf. Con. Des 2 C. E. 14a—Bridge Design. 2 C. E. 16—Eng. Con. & Spec. 2
Total18	Total

<sup>&</sup>lt;sup>1</sup> Differs from the course in civil engineering only after the first semester of the third year.

<sup>2</sup> Semester hours. For definition see page 257.

<sup>3</sup> The numbers refer to the courses in the Description of Courses, page 255.

<sup>4</sup> Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

# Course Required for the Degree of B. S. in Railway Electrical Engineering<sup>1</sup>

FIRST SEMESTER S. H. <sup>2</sup>	SECOND SEMESTER S. H. <sup>2</sup>	
G. E. D. 18—Gen. Eng. Drawing 4 Math. 4—Trigonometry 2 Math. 2—Adv. Algebra 3 French 1, or German 1 or 4, or English 1, or Spanish 1 4 M. E. 41—Shop Practice 3 Mil. 2—Military Drill 1 Phys. Tr. 1—Gymnasium 1	G. E. D. 2—Descr, Geometry	
Total18	Total	
SECOND         Math. 7—Diff. Calculus	YEAR       3         Math 9—Integral Calculus	
THIRD	VEAR	
T. & A. M. 6—Eng. Materials	T. & A. M. 10—Hydraulics	
FOURTH YEAR		
R. E. 10—Seminar       1         R. E. 64—Elec. Ry. Practice       3         E. E. 14—Adv. Alt. Currents       4         E. E. 24—Elec. Eng. Lab       2         M. E. 15—Thermodynamics       3         Econ. 2—Prin. of Economics       2         M. E. 23—Steam Eng       2	R. E. 10—Seminar.       1         R. E. 63—Ry. Lab. & Road Tests.       3         K. E. 65—Elec. Ry. Practice.       3         E. E. 34—Elec. Design & Power Plants       3         Econ. 16—Econ. Problems       2         R. E. 30—Thesis       3	
Total 17	Total 15	

<sup>&</sup>lt;sup>1</sup> Differs from the course in electrical engineering in the fourth year only.

<sup>&</sup>lt;sup>2</sup> Semester hours. For definition see page 257.

<sup>&</sup>lt;sup>8</sup> The numbers refer to the courses in the Description of Courses, page 255.

## Course Required for the Degree of B. S. in Railway Mechanical Engineering1

First Semester	SECOND SEMESTER S. H. <sup>2</sup>
G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing 4 Math. 4—Trigonometry 2 Math. 2—Adv. Algebra 3 French 1, or German 1 or 4, or English 1, or Spanish 1 4 M. E. 41—Shop Practice 3 Mil. 2—Military Drill 1 Phys. Tr. 1—Gymnasium 1	G. E. D. 2—Descr. Geometry
Total	Total 19
SECON	D YEAR       Math. 9—Integral Calculus
Total	Total 19
THIRD	YEAR
T. & A. M. 6—Eng. Materials	M. E. 9—Mach. Design
Total 18	Total 17
R. E. 1—Locomotives       2         R. E. 2—Locomotive Design       3         R. E. 4—Locomotive Performance       2         R. E. 8—Dynamometer Car Tests       2         R. E. 10—Seminar       1         M. E. 8—Mech. of Mach       3         E. E. 6—Alt. Currents       2         Econ. 2—Prin. of Economics       2	H YEAR       R. E. 3—Shops & Aux. Equip.       2         R. E. 7—Adv. Design       3         R. E. 10—Seminar       1         R. E. 30—Thesis       3         R. E. 61—Traction       3         C. E. 10—Surveying       2         Econ. 16—Econ. Prob.       2
Total17	Total16

<sup>&</sup>lt;sup>1</sup> Differs from the course in mechanical engineering only after the first semester of the third year.

<sup>2</sup> Semester hours. For definition see page 257.

<sup>3</sup> The numbers refer to the courses in the Description of Courses, page 255.

<sup>4</sup> Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## THE COLLEGE OF AGRICULTURE

For the buildings used by this College, see page 57; for a list of its courses, page 73; for clubs auxiliary to its courses of study, page 114; for honors, page 106; for honorary societies, page 113; for fees and expenses, page 122.

#### **PURPOSES**

This College offers courses of instruction to both men and women. The courses offered to men are designed for three distinct purposes:

First, and mainly, to train for the profession of farming.

Second, to train for the teaching of agriculture in the public schools.

Third, to train for the profession of landscape gardening.

The courses for women, offered by the department of household science, have two purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instruction in domestic science in high schools, and, in connection with the College of Science, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. Technical knowledge and skill should be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women. Accordingly the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge and breadth of view.

The College offers over ninety courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University.

The elective system prevails, and with a few exceptions the student is left free to select those subjects which seem best fitted

to meet his needs, always under the advice and guidance of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

### **ADMISSION**

For the regulations in regard to admission to the College of Agriculture, see the general statement of the entrance requirements of the University, page 75.

## SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

For detailed information concerning scholarships in agriculture and household science, see page 118.

# FACILITIES FOR INSTRUCTION AND METHODS OF WORK

The close affiliation of the College with the work of the Agricultural Experiment Station not only enables the University to support a larger faculty than would otherwise be possible, but also permits a much higher degree of specialization. For the most part those who teach in the College are the ones who conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used whenever good ones are available. Both the laboratory and the text are supplemented by lectures and reference readings. Buildings and laboratory space, illustrative specimens and material, and library facilities are provided.

### AGRICULTURAL EXTENSION

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station on the one hand and the local community and the farm on the other. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and to coordinate these activities through a regular channel, agricultural extension is administered as a separate department. conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the result of their work in the State.

Some of the general extension enterprises are: agricultural extension schools and demonstrations in different localities; the Two Weeks' Course given annually at the College in January; helping at farmers' institutes and similar gatherings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College and taking care of visitors.

Aside from this, courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of agricultural organization, extension projects, and methods.

#### **AGRONOMY**

The department of agronomy gives instruction in those subjects which relate especially to the field and its affairs, as drainage, farm machinery, field crops; the chemistry, physics, and bacteriology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and added to this are opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, and plant breeding, both in the analytical and pot culture laboratories and on the experiment fields at the University and in other parts of the State.

Attention is called here to the fact that in case circumstances prohibit a regular four-year course, it is possible for a student who has had sufficient preparatory training so to arrange his studies as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years' time. (See Agronomy 9 and 12.)

### ANIMAL HUSBANDRY

This department gives courses covering the separate study of sheep, swine, and beef cattle and their products; heavy and light horses with their care and training; the management of herds, flocks, and studs; the principles and practice of feeding and of breeding; and the chemical and physiological phases of animal nutrition.

For the study of animals about 500 pure-bred cattle, sheep, swine, and horses are constantly available in the herds, flock, and stud of the University, which are also used for investigations in feeding and breeding and for the illustration of the type or types of each breed. These consist of Percheron, Standard-bred, Shire, and American Saddle horses; Shorthorn, Hereford, and Aberdeen-Angus cattle: Shropshire, Oxford, Southdown, Hampshire, Rambouillet, Dorset, and Cheviot sheep; Poland-China, Berkshire, Duroc Jersey, Chester White. Tamworth, and Yorkshire swine. In addition. animals are secured from time to time to illustrate the market classes and grades of live stock, and special attention is given to instruction in the selection of animals with reference to feed lot and market requirements. For the class work in stock judging a room with tan-bark floor is provided in the Agricultural Building, where specimen animals may be brought before the classes. About 1000 lantern slides and a collection of photographs, charts, diagrams. and models afford further material for the study of stock judging. The study of pedigrees and development of the various breeds is facilitated by 75 sets of different herd, stud, and flock registers and complete files of the leading American and British live stock iournals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, and horses, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn 44x72 feet, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold storage room and other equipment for conducting demonstrations in the cutting and handling of meats; a collection of wool samples, a fibre testing machine, and microscopes for the study of wool. The chemical and physiological laboratories of the department afford facilities for advanced work in animal nutrition.

#### DAIRY HUSBANDRY

The department of dairy husbandry offers courses under the four general divisions of economic milk production, city milk supply, dairy bacteriology, and dairy manufactures.

For instructional and experimental purposes two herds of dairy cows are maintained, one a grade herd used primarily as an experimental herd, the other a pure bred herd composed of Holstein Friesians, Guernseys, Jerseys, and Ayrshires.

For instruction in dairy cattle and economic milk production, free use is made of both herds.

The actual business of economic milk production is illustrated by a twenty-acre dairy farm conducted by the department for the purpose of producing the most milk possible per acre, at the least expense. The feeding and breeding experiments, while conducted primarily for the use of the Experiment Station, are of value to the student.

Practical instruction in city milk supply is given in a dairy building used exclusively for cooling and bottling from the pure bred herd. Sanitary methods of delivery are still further illustrated in the daily distribution of this milk on the University milk route.

A bacteriological laboratory affords facilities for instruction in the courses in dairy bacteriology and city milk supply, and for bacteriological studies necessary when outbreaks of communicable disease appear to be due to the local milk supply. The laboratory is used also in the investigation of specific dairy problems.

Facilities for instruction in the manufacture of butter and cheese are provided in the University creamery, where 400 pounds of fat, in the form of whole milk and cream, are daily made into butter and marketed on a commercial basis. The creamery is equipped with the most improved cream separators, pasteurizers, cream ripeners, churns, and refrigerating machine. The student has free access to these rooms for laboratory purposes. In addition to this, the creamery and apparatus are used in investigation of problems involved in the manufacture of butter.

#### HORTICULTURE

The department of horticulture offers instruction in thirty-five courses, covering the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry), and also in subjects dealing with principles and practices applicable to all the divisions, such as plant propagation, spraying, evolution of horticultural plants, and experimental horticulture.

For the instruction in pomology, use is made of the various fruit plantations maintained by the department, including four apple orchards of ages from two to twenty years; a plum orchard representing the leading varieties of European, Japanese, and native plums; plantations of pears, peaches, and cherries; a vineyard of some fifty varieties of grapes trained on the Kniffin system; and lesser areas devoted to the small fruits. This assortment of fruit trees and plants, with an equipment in pruning tools, affords facilities for practice in pruning. The products of the orchards are drawn upon for practice in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages is maintained, with a series of models showing the construction of fruit storage houses. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For the use of students in olericulture, or vegetable gardening, certain areas of ground are reserved, on which the various garden operations are illustrated, and various crops are grown. In addition to the land, the equipment for instruction in vegetable gardening consists of hotbed frames and sash, seed drills and wheel hoes of various types, an assortment of hand tools, markers, planters, and other special tools, tying material and packing boxes for onions, asparagus, lettuce, and other products, with other accessories and appliances for the growing and handling of vegetables.

A new house 105x28 feet affords additional facilities for both experimental and instructional work in vegetable gardening. A house 80x28 feet and another 60x30 also add to the equipment for work in plant breeding.

The facilities for instruction in floriculture consist of four houses each 105x28 feet connected by a corridor house 10x80 feet. While intended primarily for experimental purposes, these houses serve as illustrations in modern greenhouse construction and furnish material for the work in commercial floriculture. A growing house 332x34 feet and a palm house 40x80 feet, to be devoted entirely to instructional work, will add to the facilities of the department. A service building containing class rooms and offices is equipped with florists' supplies used in the work. The greenhouses contain a collection of plants, including geraniums, begonias, carnations, chrysanthemums, and bulbs in assortment, and furnish facilities for work in amateur floriculture and certain branches of plant propagation.

The collection of ornamental shrubs and trees growing upon the campus furnishes material for plant studies in connection with the work in landscape gardening, while the plantings about the horticultural building and certain residences in the vicinity of the University illustrate types of landscape design. A series of 500 lantern slides is used in the lectures in landscape gardening.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of some thirty acres, consisting of Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

In addition to the material already mentioned as available for use in the course in plant propagation, the small fruit and grape plantations are drawn upon for material for making the various types of hardwood cuttings and for illustrating propagation by layers, suckers, etc. Scions are cut from the orchards, and seeding stocks are purchased in quantity each year for work in grafting. A herbarium of cultivated plants furnishes material for the study of the relationships and classification of economic and ornamental plants.

#### HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of two classes of students, viz.: (a) those students who specialize in other lines of work, but desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science.

The department of household science is housed in the north wing of the Woman's Building. The kitchen for extension work with dining room adjoining and a well equipped laundry are in the basement. The first floor contains two class rooms, a seminar room, a large exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens, small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides practice for those interested in the problems of institutional management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction, furnishing, and household administration are studied.

### VETERINARY SCIENCE

In the department of veterinary science the student is instructed in subjects relating to the prevention of disease among domestic animals and their treatment when affected by disease,

### REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours of credit before the senior year may then elect a thesis course in any department (subject to the approval of the head thereof) in which he has done at least 20 hours' work.

Graduates of approved colleges may expect to secure a degree in agriculture from the University of Illinois upon completion of the technical and scientific requirements. This will ordinarily require approximately two years of residence work; a minimum of one year will be exacted.

#### GENERAL COURSE IN AGRICULTURE

All students except those in the formal courses in household science, floriculture, or landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This gives the student a correct conception of the fundamental farm practices and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, buildings, etc., and leaves the junior and senior years open for election.

One hundred thirty hours are required for graduation, as follows:

Agriculture prescribed first two years...19 hours Agriculture prescribed as electives.....40 hours

Total agriculture required.....

Non-agriculture prescribed.....42 hours Non-agriculture prescribed as electives. 15 hours Total non-agriculture required .... 57 hours Open electives..... 14 hours 130 hours PRESCRIBED SUBTECTS Required for the Degree of Bachelor of Science in General Course in Agriculture FIRST YEAR Hours Second Semester Hours First Semester Chemistry 2 and 3..... 5 Chemistry I..... 5 Rhetoric 1..... 3 Rhetoric 1\* ..... 3 Animal Husbandry 5..... 3 Agronomy 25..... 4 Dairy Husbandry 3..... I Horticulture 1a..... 2 Horticulture 1b...... 2 Agricultural Extension 4..... 1/2 Agricultural Extension 4... 1/2 Military 2..... I

#### SECOND YEAR

Physical Training..... I

Military I and 2..... 2

Physical Training..... I

Chemistry 13a or Botany 1 5	Botany 1 or Chemistry 13a. 5
Animal Husbandry 6 3	Agronomy 26 3
Military 2 I	Military 2 1
Electives	Electives

In addition to the above, students will take the following:

Agriculture, electives	40 hours
Non-agriculture, electives	15 hours
English 20	4 hours
Science, elective	5 hours
Open electives	14 hours

<sup>\*</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 81.

Students registered previous to September, 1912, will meet the requirements outlined below so far as it is possible to do so:

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in General Course in Agriculture

Agronomy 6 or 7, 9, 12	121/2	hours
Animal Husbandry 7	3	hours
Botany 121	I	hour
Chemistry 1, 2, 3, 13a	15	hours
Dairy Husbandry 1	3	hours
Economics 2	2	hours
English Literature 1	4	hours
Entomology 4	21/2	hours
Horticulture 1, 10a	8	hours
Military I, 2	5	hours
Physical Training I, Ia	2	hours
Rhetoric 1	6	hours
Thremmatology I (Animal Husbandry 30)	5	hours
Total prescribed subjects	69	hours
Elective List A; a minimum of	41/2	hours
Elective List B; a minimum of	3	hours
Etective List C; a minimum of	25	hours
Elective List D; a minimum of	10	hours
,		
Total	421/2	hours

#### LANGUAGE REQUIREMENT

In addition to the above, students who have not offered for matriculation three units of foreign language (commonly three years of high school work) of which two units are in the same language, will be required to offer one of the following at their option:

- I. Two years of entrance and eight hours of university credit in foreign language. Except by special permission these credits should not be divided among more than two languages.
  - 2. Sixteen university credits in the same foreign language; or
  - 3. Eight hours of university credit in English literature in

<sup>&</sup>lt;sup>1</sup> Botany 12 is not required of students who elect Botany 5 and no credit will be allowed to such students in this course.

addition to the standard requirement, together with eight hours of economics, or eight hours of history, or eight hours of education.

#### ELECTIVE LISTS

List A—Animal Husbandry 1 to 4, 11 to 14, 17 to 18, 22 Dairy Husbandry 2

List B-English literature 2, 16, 23

Rhetoric 16, 20, 19, 3

List C—This list includes all subjects offered in technical agriculture and not included in the prescribed list, viz.:

Agricultural Extension 1, 3

Agronomy 1 to 8, 10, 13, 16 to 22

Animal Husbandry 1 to 4, 8 to 14, 16, 18, 21 to 23b

Dairy Husbandry 2, 7, 8, 11 to 22

Horticulture 2 to 9, 10b to 15b, 17 to 34

Veterinary Science 2, 4, 5, 6

List D-Botany 1, Botany 5, Zoology 1

#### Summary

Total list electives			hours
Total language requirement			
	_	 	

'otal ...... 130 hours

## GENERAL COURSE IN FLORICULTURE

The object of this course is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and garden and give the student a working knowledge of the best methods now in use.

#### PRESCRIBED SUBJECTS

## Required for the Degree of Bachelor of Science in General Course in Floriculture

Agronomy 9, 12	ю	hours
Animal Husbandry 30	5	hours
Botany I, 2, 7	15	hours
Chemistry 1, 2, 3, 13a	15	hours
Economics 2	2	hours
English Literature 20	4	hours

Entomology 4       3 hours         Horticulture 4, 5. 7, 10a, 10b, 12, 15a, 15b, 30, 31, 32       41 hours         Military 1, 2       5 hours         Physical Training 1, 1a       2 hours         Rhetoric 1       6 hours         Zoology 1       5 hours         Language (see page 191)       8 or 16 hours         Electives       17 hours
Total prescribed
Total

#### COURSE OF INSTRUCTION

#### First Year

- I. Entomology 4; Chemistry I; Rhetoric I; Horticulture 4; Military 2; Physical Training I, Ia.
- 2. Chemistry 2; Chemistry 3; Rhetoric 1; Horticulture 5; Military 1, 2; Physical Training 1, 1a.

#### Second Year

- 1. English 20; Chemistry 13a; Botany 2; Military 2.
- 2. Zoology 1; Horticulture 15a; Botany 1; Military 2.

#### Third Year

- I. Botany 7; Agronomy 9; Horticulture 15b; Economics 2.
- 2. Agronomy 12; Horticulture 7; Electives, 8 hours.

#### Fourth Year

- 1. Horticulture 102; Horticulture 122; Horticulture 31; Electives, 6 hours.
- 2. Horticulture 30; Horticulture 32; Animal Husbandry 30; Horticulture 10b.

#### GENERAL COURSE IN HOUSEHOLD SCIENCE

Of the 130 hours required for graduation, 99 are provided for in the prescribed list and the restricted electives of List A. The other 31 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in

household science in this College take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

#### PRESCRIBED SUBJECTS

# Required for the Degree of Bachelor of Science in General Course in Household Science

Art and Design 1, 12, 19	. 9	hours
Botany I, 5	· IO	hours
Chemistry 1, 2, 3	. 10	hours
English I, 2	. 8	hours
Household Science 1, 2, 3, 6, 7, 10, 12, 14	20	hours
History I, or 3 6 or	8	hours
Physiology 4	. 5	hours
Physical Training 7, Physiology 6	3	hours
Rhetoric 1	. 6	hours
Zoology	. 5	hours
Language (see page 191)8 o	r 16	hours
English or Rhetoric	. 5	hours
*List A, a minimum of	. 4	hours
Total required subjects99 to	109	hours
Electives31 to	21	hours

#### FIFCTIVES

130 hours

List A.—English 19, 24
Horticulture 1, 2, 3, 5, 19, 28
Household Science 5, 13
Economics 2, Sociology 1
Physics 2a
Education 1, 2, 6, 9
Agronomy 5, 6
Animal Husbandry 10
Dairy Husbandry 1, 14, 19

Total

<sup>\*</sup>If Physics has not been offered for entrance, its equivalent should be elected.

## Course of Instruction

#### First Year

- I. Household Science 2; Chemistry 1; Rhetoric 1; Physical Training 7 and 9; English 1.
- 2. Household Science 1; Chemistry 2, 3; Rhetoric 1; Physical Training 7; English 2.

#### Second Year

- 1. Household Science 6; Zoology 1; Household Science 7; Art and Design 1; Horticulture 19; Electives.
- 2. Household Science 14; Botany 1; Art and Design 12; Horticulture 10; Electives.

#### Third Year

- 1. Art and Design 19; Physiology 4; Advanced English; Electives.
- 2. Household Science 3; Household Science 12; Advanced English; Economics 2; Art and Design 19; Electives.

#### Fourth Year

- I. Household Science 10; Sociology I; Education I; History 3.
- 2. Education 2 or 6; Botany 5; History 3.

## GENERAL COURSE IN LANDSCAPE GARDENING

The work is two-fold: (1) Elementary work for one year open to all who are working for a baccalaureate degree in agriculture; (2) a four years' course in preparation for professional landscape gardening.

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in Landscape
Gardening

Architecture 13, 14, 15, 16, 31, 32, 33, 34, 35, 36	32	hours
Art and Design 4	6	hours
Botany I	5	hours
Civil Engineering I, 2I, 22	11	hours
Descriptive Geometry (G. E. D. 2)	4	hours
Economics 2	2	hours
Entomology 4	3	hours
Language (See page 191)8 or	16	hours
Horticulture 5, 10a, 10b, 23a, 23b, 24a, 24b, 25a, 25b,		
27 28 21 26	27	hours

Mathematics 4	2 hours
Military I, 2	5 hours
Physical Training 1, 1a	2 hours
Rhetoric 1	6 hours

#### COURSE OF INSTRUCTION

#### First Year

- 1. Architecture 13; Architecture 31; Military 2; Physical Training 1; Rhetoric 1; Horticulture 10a; General Engineering Drawing 2.
- 2. Architecture 14; Architecture 32; Military 1 and 2; Physical Training 1; Rhetoric 1; Horticulture 10b; Mathematics 4.

#### Second Year

- I. Architecture 15; Architecture 33; Horticulture 24a; Botany I; Civil Engineering 2I; Military 2.
- 2. Architecture 16; Architecture 34; Horticulture 24b; Horticulture 5; Civil Engineering 22; Military 2.

#### Third Year

- 1. Architecture 35; Horticulture 23a; Art and Design 4; Language; Economics 2.
- 2. Architecture 36. Horticulture 23b; Art and Design 4; Language; Civil Engineering 1.

## Fourth Year

- 1. Horticulture 25a; Horticulture 31; Horticulture 27; Electives.
- 2. Horticulture 25b; Horticulture 28; Entomology 4; Electives.

## REQUIREMENTS FOR GRADUATION

Students are graduated with the degree of Bachelor of Science in General Course in Landscape Gardening upon completing the following work:

- 1. The studies of the prescribed list.
- 2. Sufficient electives, which may be any university courses approved by the instructor in charge, to make a total of 130 hours.

## GENERAL COURSE FOR PROSPECTIVE TEACHERS OF AGRICULTURE

A general course is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, 11b, 30\*; Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4; Botany 1, 12; Chemistry 1, 2, 3, 13a; Entomology 4; Zoology 1; English 20; Rhetoric 1, 5, 7; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Training 1, 1a; foreign language.

For further information concerning this course, address the Dean of the College of Agriculture.

## TWO WEEKS' COURSE IN AGRICULTURE AND HOUSEHOLD SCIENCE

#### AGRICULTURE

The Corn Growers' and Stockmen's Convention is held annually at the College of Agriculture (in 1913, January 13-25). At the time of this meeting, the College gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

#### HOUSEHOLD SCIENCE

At the same time, a two-weeks' course in household science consisting of lectures and recitation work is given in the rooms of the department of household science in the Woman's Building.

#### ADMISSION

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. Upon arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

<sup>\*</sup>Students taking the Teachers' course may take Animal Husbandry 30 for one-half semester and receive 2½ credits therefor.

## THE GRADUATE SCHOOL

#### THE EXECUTIVE FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., President of the University DAVID KINLEY, Ph.D., LL.D., Dean of the Graduate School, Director

of the Courses in Commerce, and Professor of Economics
BOYD HENRY BODE, Ph.D., Professor of Philosophy

ALBERT PRUDEN CARMAN, A.M., Sc.D., Professor of Physics

GUY STANTON FORD, Ph.D., Professor of Modern European History

JULIUS GOEBEL, Ph.D. Professor of German

WILLIAM FREEMAN MYRICK Goss, M.S., D.Eng., Dean of the College of Engineering, Director of the School of Railway Engineering and Administration, Director of the Engineering Experiment Station, and Professor of Railway Engineering

George Abram Miller, Ph.D., Professor of Mathematics

HERBERT WINDSOR MUMFORD, B.S., Professor of Animal Husbandry

WILLIAM ABBOTT OLDFATHER, Ph.D., Associate Professor of the Classics

SAMUEL WILSON PARR, M.S., Professor of Applied Chemistry

JAMES HARVEY PETTIT, Ph.D., Professor of Soil Fertility

STUART PRATT SHERMAN, Ph.D., Professor of English

ARTHUR NEWELL TALBOT, C.E., Professor of Municipal and Sanitary
Engineering

HENRY BALDWIN WARD, Ph.D., Professor of Zoology

#### HISTORY AND ORGANIZATION

Although for many years the University of Illinois had offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. In 1894 the administration of the School was vested in the Council of Administration and the Vice-President of the University became Dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President. No means of support, however, were provided, separate from those provided for the undergraduate work. In the winter of 1906-7, the Forty-fifth General Assembly of the State passed an act appropriating \$50,000 per year for the support of a Graduate School of the Arts and Sciences in the State University. This appropriation has been continued by succeeding legislatures.

By an act of the Board of Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in courses approved for graduate credit. The affairs of the School, however, are in charge of the executive faculty appointed each year by the President.

#### ADMISSION

For admission to the Graduate School to work for a degree an applicant must hold a first degree either from the University of Illinois or from some other university or college of equivalent standing. Admission to particular graduate courses or departments may be secured only by those who have had the requisite undergraduate work in those courses or departments.

In order to be enrolled as a member of the Graduate School a student must be doing graduate work. The possession of a first degree does not entitle a student to be enrolled in the Graduate School, if the courses which he is taking are undergraduate.

Students of mature age who do not hold a first degree, but satisfy the Dean of the School and the officers of the departments in which they wish to work of their earnestness of purpose and special fitness, may be permitted to take work in the Graduate School without reference to candidacy for a degree. In order to secure this permission, however, a candidate must have had such preliminary preparation for the work he wishes to take up as would justify his

admission to the Graduate School as a candidate for a degree if he could meet the other requirements fully.

Each student is required to attend a minimum of four class, lecture, or laboratory exercises a week in the first year of his graduate study; and in no case is he permitted during his course to attend more than twelve a week.

Continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, upon recommendation of the professors in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work; for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree.

Students are warned against restricting themselves merely to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study; and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subjects.

Application blanks for admission may be secured from the Dean of the Graduate School or from the Registrar of the University.

#### THE MASTER'S DEGREE

Candidates for the degree of Master of Arts or Master of Science are required to do at least one year's work in residence and to write a thesis.

A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. The candidate must do at least half his work in his major subject.

Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the faculty of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work, and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. In no case will permission to take the degree without a thesis be given if applied for later than the latest date for the approval of thesis subjects, as shown by the calendar.

The thesis required from a candidate for a master's degree ordinarily will demand about one-fourth of the student's time. The thesis must be type-written, on "thesis paper," and the title-page must be printed. The thesis, in its final form, together with a certificate of approval by the proper officer, must be left by the student at the Dean's office at the time set in the calendar.

Credit is not given for work done in other universities. The candidate is examined here on the subjects offered by him for the advanced degree.

#### THE MASTER'S DEGREE IN ENGINEERING

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science, in Architecture, Architectural Engineering, Civil Engineering, Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above for academic work in residence only.

The professional second degrees in engineering are as follows:

Master of Architecture after B. S. in Architecture.

Architectural Engineer after B. S. in Architectural Engineering. Civil Engineer after B. S. in Civil Engineering or B. S. in Municipal and Sanitary Engineering.

Electrical Engineer after B. S. in Electrical Engineering.

Mechanical Engineer after B. S. in Mechanical Engineering.

Civil Engineer, Electrical Engineer, or Mechanical Engineer, after B. S. in Railway Engineering, according to the course.

Professional degrees are conferred upon two classes of candidates: I. Graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science. 2. Graduates of the University of Illinois, or of institutions of equal standing, who

have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigations of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he proposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional engineering degrees who already hold the degree of Master of Science may qualify for the professional degree after two years of professional work.

### THE DEGREE OF DOCTOR OF PHILOSOPHY

General Statement of Requirements.—The requirements for the degree of Doctor of Philosophy are a thorough mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge, and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor must be a subject closely related to the major and may, under certain conditions and with proper approval, be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major, and a division of that subject as his minor, he is not permitted to choose as a second

minor any division of work in that same department, excepting by vote of the executive faculty of the School.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the School.

Period of Study.—The minimum period of study required for securing the degree of Doctor of Philosophy is three years. The degree is conferred, however, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

Candidates should note that credit is not given for work done in other universities, excepting in the sense that their residence at other institutions is counted towards the residence requirement for the doctor's degree.

At least the first two or the last one of the three years required must be spent at this University.

Examinations.—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is partly oral, and may be wholly so. At this time, or before, the candidate will be required to demonstrate his ability to read French and German, and any other language needed for the prosecution of his work.

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination by a committee appointed by the Dean of the Graduate School. This examination will be partly written. The candidate will also have, however, an oral examination. These examinations will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the broad fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and

the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If, after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even though it requires several sessions.

Thesis.—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study, and must be submitted for formal approval by the faculty not later than the first Monday of November of the year when the degree is expected. A typewritten copy of the complete thesis, on thesis paper, with proper certificate of approval, must be in the hands of the Dean not later than noon of the Saturday nearest the middle of May.

The thesis must be printed and one hundred copies deposited in the library of the University before the degree is conferred. If, for any reason, the thesis cannot be printed and one hundred copies deposited before commencement time, the candidate must, before the first Monday in June, deposit a bond acceptable to the Comptroller of the University and the Dean of the Graduate School for the cost of printing his thesis, or such part thereof as may be regarded as sufficient to meet the requirements of the rules.

The title page of each thesis must bear the words "Submitted in partial fulfillment of the requirements of the degree of Doctor of Philosophy in—(here put the major subject), in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, the full title of the thesis, the year of imprint, and, if a reprint, the title, volume, and statement of the pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short biography of the candidate,

including the institutions he has attended, his degrees and honors, the titles of his publications, and such other matters as may be pertinent.

## SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open a number of scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks to be obtained from the Dean of the Graduate School. These application forms should be addressed to the Dean of the Graduate School as early as possible in February of the academic year preceding that for which the fellowship is desired.

Persons appointed are required to send the Secretary of the Board of Trustees prompt notice of their acceptance or refusal; and to agree that, if accepted, the appointment will not be resigned to take a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made upon the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

Scholarships and fellowships are good for one year, but may be renewed for a second or a third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

RESEARCH FELLOWSHIPS IN THE ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station is devoted entirely to research. Its purposes are the elevation of engineering education, and the study of problems of special importance to engineers and to manufacturing, railway, mining, and industrial interests.

Ten fellowships, each of five hundred dollars a year, have been established in the Engineering Experiment Station. Applicants to whom these fellowships are awarded agree to hold them for two years. They devote half of their time to the work of the Engineering Experiment Station, which work is not applicable toward a degree; the other half of their time is given to graduate study in candidacy for a degree. Application for these fellowships should be made to the Director of the Engineering Experiment Station.

#### THE GRADUATE CLUB

The Graduate Club is an organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which graduate work often develops.

# THE LIBRARY SCHOOL

For a description of the Library Building, see page 60; for an account of the libraries themselves, see pages 67, 68; for the collection in library economy, see page 68; for fees, see page 122.

#### AIM AND SCOPE

It is the purpose of the Library School to offer a two years' course of instruction to students who wish to enter library work as a profession, and to offer certain library courses to students in other schools and colleges of the University of Illinois who may wish to elect them as a part of their course of training. The course is planned so that students who complete the first or junior year's work are prepared to accept positions in library service, the schedule of courses in this year being so arranged as to cover the generally accepted methods and practices in modern library economy. In the second or senior year some of the junior subjects are gone over more intensively, greater emphasis being placed upon historical and comparative methods of treatment; other subjects are introduced to give the student a broad outlook and a scholarly, technical, and administrative equipment for the more responsible positions.

One or two years of training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The practical work of the course amounts to over three months of time, counting eight hours a day, and this is more valuable, because more varied, than if taken in three consecutive months in any one library. Moreover, the library school student has the benefit of comparative study, while the apprentice becomes skillful in the ways of one library only. Although stress is laid upon simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid upon the extension of the activities of the public library, and upon the importance of cooperation between the library and the schools and other educational agencies.

A student in any other school or college of the University of Illinois may elect any course for which he is prepared. These courses will help students in general reading, in research work, in club work, as high school teachers, or as members of a library committee or a board of trustees. The school also offers a course of eighteen hours on the use of the library and the ordinary reference books, which will help in general reading or study.

# ENTRANCE REQUIREMENTS

Admission to the Library School is conditioned upon the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training.

Application blanks for admission may be secured from the Director of the School, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, not later than the registration days in September. It is to the candidate's interest to present the application and certificates early, in order that the question of admission may be settled before he comes to the University.

#### ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from another institution offering courses in library economy.

#### SPECIAL STUDENTS

It is the practice of this School to admit as special students only those mature persons who, though unable to meet the formal requirements for entrance, are substantially prepared for thorough and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirements for entrance, such as approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

#### LIBRARY VISITS AND FIELD WORK

Each year all the students in the School visit the libraries, and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by a member of the faculty.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned public library, working, as far as practicable, under the same conditions as a member of the staff of that library.

## SCHEDULE OF COURSE

The course is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (\*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the two years' course.

JUNIOR YEAR

	10211010	ILAK
	FIRST SEMESTER	SECOND SEMESTER
21	Reference work (3 hrs.)	21 Reference work (3 hrs.)
3	Selection of books (2 hrs.)	3 Selection of books (2 hrs.)
4	Practice work 4 hours per week (2 hrs.)	4 Practice work, 4 hours per week (2 hrs.)
16	Order, accession, and shelf work (2 hrs.)	7 History of libraries (2 hrs.) 19 Trade bibliography (1 hr.)
17	Classification and book numbers (3 hrs.)	20 Loan department (1 hr.) 21 Printing, binding, indexing
18	Cataloging (3 hrs.)	(2 hrs)
23	Library administration and cur- rent library literature (1 hr.)	<ul> <li>22 Library extension (3 hrs.)</li> <li>23 Library administration and current library literature (1 hr.)</li> </ul>
	SENTOR	VEAR

# SENIOR YEAR 6 Subject hibliography (2 hrs.) 6 Su

6 Subject hibliography (2 hrs )

*Advanced reference work (2	9	*Bookmaking (2 hrs.)
hrs.)		Practice work, 8 hours per week
Practice work, 8 hours per week		(4 hrs.)
(4 hrs.)	13	*Public documents (2 hrs.)
Public documents (2 hrs.)		Seminar (2 hrs.)
		Selection of books (2 hrs.)
Selection of books (2 hrs.)		Advanced classification and cata-
Bibliographical institutions (1 hr.)		loging (1 hr.)
	26	Library administration (3 hrs.)
,		
		partments of the library (1 to 4
		hrs.)
	Practice work, 8 hours per week	hrs.) Practice work, 8 hours per week (4 hrs.) Public documents (2 hrs.) Seminar (2 hrs.) Selection of books (2 hrs.) Bibliographical institutions (1 hr.) Library administration (3 hrs.)

# LIBRARY CLUB

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year to discuss professional questions, and for social purposes.

<sup>&</sup>lt;sup>1</sup>The numbers in these columns refer to the Courses in Library Science in the General Description of Courses.

# THE SCHOOL OF MUSIC

For admission to the School of Music, see the general statement of entrance requirements of the University, page 75. For fees, see page 123. For the faculty of the School of Music and descriptions of the courses in Music, see under "Music" in the "General Description of Courses," Part III.

# AIMS AND SCOPE

The School of Music offers regular courses leading to the degree of Bachelor of Music, and a teacher's certificate in public school music.

Students who are not working for the degree in music may receive a statement from their instructors upon completing not less than one year of college work.

Classes in ear training meet twice each week. The fundamental principles of musical notation are studied thoroughly, and the ear is trained to recognize intervals, chords, etc., so that the student may eventually think music. Music students are required to attend these classes.

The sight-singing classes meet twice each week. This work is required of music students.

Choral, orchestral, and ensemble work are required of all students who are sufficiently advanced.

A series of lectures and recitals is given each year. Only artists of the best reputation appear. Music students are admitted free and are required to attend these concerts.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

# REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

#### Course in Music

#### 1. PRESCRIBED SUBJECTS

#### (a) History and Theory of Music

Music 1—History of Music  Music 1a—Acoustics  Music 2—Harmony  Music 3—Advanced Harmony  Music 4—Counterpoint, Canon, and Fugue  Music 5—General Theory, Free Composition	2 6 6	hours hours hours
Total, history and theory	27	hours
(b) Practice		
Music         Piano         Voice         Violin         'Cello           First Year         7         12         17         32	14164	hours hours hours
Total, practice	62	hours
French, German, or Italian English 1 *Rhetoric 1 Rhetoric 3 Military 1, 2 (for men) Physical training 1 and 1a (men) Physical training 7 and 9 (women)	8 6 3 5	hours hours hours hours
Total, for men, 44 hours; for women		

#### 2. ELECTIVES

The remaining hours necessary to make up the required total of 130 hours—one hour for men, five hours for women—may be made in other musical subjects or in subjects offered in the colleges of Literature and Arts and Science.

#### COURSE IN PUBLIC SCHOOL MUSIC

The aim of the Course in Public School Music is to prepare competent teachers and supervisors of music for the public schools. Students completing the course are granted teachers' certificates.

<sup>\*</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 81.

An opportunity for practice teaching is offered. The course is one year in length, and comprises the following prescribed subjects:

#### Public School Music Course

Music 1—History of Music	42282	hours hours hours hours
3	6	hours

Advanced students may satisfy a part of the foregoing requirements by examination; in no case, however, is a student permitted to take less than 30 hours of work.

#### MUSICAL ORGANIZATIONS

The University Choral and Orchestral Society is conducted by the Director of the School of Music, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

The Military Band is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination. A Second Band is also conducted, in order that all students who play band instruments ordinarily well may have an opportunity to play in a band. Each full term of service in the Band counts for one term of the required work in Military Science. After obtaining credit for four semesters' work those who are continued in the Band for not less than one year are paid an amount equal to the term, or "incidental", fees of the year.

# THE SCHOOL OF EDUCATION

#### FACULTY

The faculty of the School of Education includes all those instructors who offer courses primarily intended for prospective teachers.

#### **PURPOSE**

It is the purpose of the School to bring together all the resources of the University which contribute in a professional way to the preparation of three classes of workers in the public school system:

- 1. The High School Principal and the High School Teacher.— The School provides for the needs of the high school principal by supplying a general knowledge of the various subjects of the high school curriculum, as well as a knowledge of organization and administration as applied to the secondary school; and for those of the departmental specialist by supplying a more extended knowledge of a few subjects.
- 2. The Supervisor of Special Subjects.—Manual training, agriculture, domestic science, music, drawing, and physical training, as now taught in the better school systems, are subjects which demand specially trained supervisors; the facilities of the University for instruction in these subjects are thoroughly utilized.
- 3. The School Superintendent.—Demanding, as he does, a knowledge of the development of school systems, a keen insight into pedagogical problems, and an appreciation of child-nature, the superintendent needs extended preparation; this the School of Education is prepared to give.

#### COURSE

The course of study of the School of Education is made up of offerings selected from the work of the various departments of instruction in the University. The course is elective except for the

graduation requirements of the college in which the student is registered. Certain subjects are, however, required of all students who wish to be officially recommended by the University for high school positions. The work is arranged in four groups:

- (a) Courses in education, psychology, and sociology bearing directly upon the profession of the teacher.
- (b) Courses especially intended for teachers, offered by various departments of the University.
- (c) Suggested programs for students preparing to become special teachers and supervisors of agriculture, domestic science, drawing, music, or physical training.
- (d) Suggested programs for continuous and progressive work in subjects represented in the high school curriculum.

#### SPECIAL LECTURES

A number of special lectures are offered each year by the School of Education.

#### COMMITTEE ON APPOINTMENT OF TEACHERS

This committee has in charge the naming of candidates from among graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools.

The Director of the School of Education is chairman of this committee, and the official nominations of students and graduates of the University to public school positions are made through his office.

The following resolution was adopted by the University Senate, June 3, 1912:

I. The University Committee on Appointments is authorized to issue its recommendation, signed by the committee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of 85 in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the committee) in each of the other subjects for which he wishes to be recommended. The committee shall, however, in each case secure the written opinion of the departments concerned, of the scholarship

of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the committee to be reasons which, from their nature, can not be shown by mere records, for questioning the scholastic ability of the student, the committee may, in its discretion, withhold the recommendation.

- 2. A candidate must have successfully completed the following courses in the department of education:
- a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A three-hour course.)
- b. A course in the techique of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class-management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)
- 3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above (1) if the candidate is a normal school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successful teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses but is enrolled at that time in the course, a committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 of the above resolutions are (a) Education 1, Principles of Education, which is now offered as a three-hour course during the first semester; and (b) Education 10, Observation and Technique of Teaching, a three-hour course. Education 10 may be taken either the first or the second semester.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

#### GENERAL STATEMENT

The School of Railway Engineering and Administration has been established to prepare men broadly for the technical and administrative departments of railroads. The work offered is arranged in five different courses, any one of which is designed to occupy four years' time. The courses are:

Railway Civil Engineering Railway Mechanical Engineering Railway Electrical Engineering Railway Transportation Railway Traffic and Accounting

The first three of these courses are administered by the College of Engineering, and a description of them appears with that of other courses offered by this College. Students are admitted to them under the same conditions as to other courses of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two courses are administered by the College of Literature and Arts; they are described in detail in connection with the other courses of this College. Students are admitted to them under the same conditions as to other courses of the College of Literature and Arts.

It is the purpose of each of these courses to add to the broad foundation of discipline and training which should be supplied by every college course such specialized training as will be most useful to those who look forward to careers in railway service.

# MILITARY SCIENCE

The military instruction is under the charge of an officer of the United States Army. The course as a whole has special reference to the duties of officers of the line. A full supply of arms and ammunition is furnished by the War Department, including 1,200 U. S. magazine rifles (model 1898) and accourrements, two field pieces of artillery, and full equipment for a signal corps and a hospital corps.

Every male student under twenty-five years of age, able to perform military duty, and not excused for sufficient cause, is required to drill twice each week until he has gained credit for four semester hours. He is also required to study drill regulations for infantry, and to recite upon the text once a week until he gains credit for one semester hour.

The practical instruction begins as soon as possible after a student enters the University. The standings in study and drill are placed on record with other class credits; one semester of recitations and drill counts two hours, and the three remaining semesters of drill three hours. This work is required for graduation in all the undergraduate colleges of the University.

The regiment, four battalions of four companies each, is composed mainly of the members of the freshman and sophomore classes. The non-commissioned officers are usually selected from the sophomore class, the lieutenants from the junior class, and the field officers and captains from the senior class and graduate school. There are 1,450 cadets and seventy-one commissioned officers in the regiment.

Artillery and signal detachments are organized mainly from those students of the second year or sophomore class who have made more than an average standing in the work of the previous year.

A special military scholarship, good for one year, is open to each student who attains the grade of a commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regi-

ment are made on the nomination of the commandant of cadets confirmed by the Council of Administration.

Towards the close of the year a committee appointed by the President of the University examines candidates for nomination to the Governor of the State to receive commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing at the time of this examination; must have completed the course of military studies; must have served two semesters as commissioned officers; and must be approved by the Council of Administration as having good reputations as scholars, officers, and gentlemen.

The uniform is of cadet gray, the coat trimmed with black mohair braid, the trousers with black cloth stripe, cut after the U. S. Army pattern. During warm weather a blue flannel shirt is worn instead of the coat. In order that all uniforms worn at the University may be, in quality, make, and finish, in strict accordance with the specifications adopted by the Board of Trustees, all students enrolled in the military department are required to obtain them from that firm only that may, for the time being, be under agreement and bond with the Trustees to furnish said uniforms at a stated price and of standard quality.

The University military band is composed of students, and every full term of service therein is counted as one term of drill. Those who play in the band after having earned their five military credits necessary for graduation have their incidental fees remitted at the end of each year. Besides giving several concerts during the year, the band furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination.

# PHYSICAL TRAINING

#### FOR MEN

The object of the work in this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper intercollegiate sports. Regular classes are formed in swimming and fencing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 60.

#### FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and co-ordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, marching, fancy steps, games, Maypole, etc. Tennis, hockey, basket-ball, volley-ball, German-ball, and quoits are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consists of black serge bloomers, white "middy" blouse, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a. m. and from 2 to 5 p. m. The regulation swimming suit of one piece must be made of either denim or mohair.

For a description of the Women's Gymnasium, see under Woman's Building, page 61.

# THE SUMMER SESSION

EDMUND JANES JAMES, Ph.D., LL.D., President of the University WILLIAM CHANDLER BAGLEY, Ph.D., Director of the Summer Session

# STAFF OF INSTRUCTION—1912

Samuel Herbert Anderson, A.M., Assistant in Physics
Ione Armstrong, Instructor in Library Science
William Chandler Bagley, Ph.D., Professor of Education
Clarence William Balke, Ph.D., Assistant Professor of Chemistry
Charles Anthony Barnhart, A.M., Assistant in Mathematics
Philip Stephan Barto, A.M., Assistant in German
Herbert Jewett Barton, A.M., Professor of the Latin Language and
Literature

VERNA BROOKS, A.B., Assistant in Physical Training for Women
WALTER BUCHEN, A.B., Assistant in English
LAURIE LORNE BURGESS, Ph.D., Associate in Chemistry
GEORGE ERNEST CARSCALLEN, A.M., Assistant in Mathematics
JOHN MANTEL CLAPP, A.M., Professor of English, Lake Forest
College

WILLIAM WALTER CORT, A.M., Instructor in Zoology.

A. F. COUTANT, Instructor in Zoology
CHARLES E. DECKER, Instructor in Physiography
WILLIAM WELLS DENTON, Ph.D., Assistant in Mathematics
CLARENCE GEORGE DERICK, Ph.D., Associate in Chemistry
GEORGE WILLIAM DOWRIE, A.M., Fellow in Economics
JAMES MERION DUNCAN, Instructor in Mechanical Engineering
JAMES EVERETT EGAN, A.B., Assistant in Chemistry

ARNOLD EMCH, Ph.D., Assistant Professor of Mathematics

NEWTON EDWARD ENSIGN, A.B., B.S., Instructor in Theoretical and Applied Mechanics

Augusta Dillman Evans, A.B., Assistant in Agricultural Extension Stanley Prince Farwell, M.S., Instructor in Theoretical and Applied Mechanics

JUSTUS WATSON FOLSOM, Sc.D., Assistant Professor of Entomology Guy Stanton Ford, Ph.D., Professor of History

KARL FREDERICK GEISER, Ph.D., Professor of Political Science, Oberlin College

HUGH GLASGOW, A.B., Assistant in Entomology

HENRY DAVID GRAY, Ph.D., Assistant Professor of English, Leland Stanford Ir. University

ERNEST MILTON HALLIDAY, A.B., LL.B., Associate in English

LEO GREGORY HANA, Director of the Men's Gymnasium

CHARLES HART HANDSCHIN, Ph.D., Professor of the German Language and Literature, Miami University

EDWARD CARY HAYES, Ph.D., Professor of Sociology

FELIX EMIL HELD, A.M., Assistant in German

MARY B. HILL, Assistant in Art and Design

HORACE ADELBERT HOLLISTER, A.M., High School Visitor

CHARLES FREDERICK HOTTES, Ph.D., Assistant Professor of Botany

PAUL EDWARD HOWE, Ph.D., Instructor in Physiological Chemistry

LLOYD THEODORE JONES, A.M., Assistant in Physics

OLIVER H. KAMM, B.S., Assistant in Chemistry

CHARLES TOBIAS KNIPP, Ph.D., Assistant Professor of Physics

PHILIP AUGUSTUS LEHENBAUER, A.M., Assistant in Botany

ELLEN S McCarthy, Ph.D., Instructor in Chemistry

EUGENE IRVING McCormac, Ph.D., Professor of American History, University of California

ELMER MASSEY McDonald, Instructor in Agronomy

OSCAR ROSS MARTIN, A.B., Assistant in Economics

WILFORD STANTON MILLER, A.M., Assistant and Secretary in the School of Education

CHARLES HENRY MILLS, D.Mus., F.R.CO., Professor of Music

CLARENCE EUGENE NOERENBERG, A.B., A.E., Instructor in Theoretical and Applied Mechanics

ARETAS WILBUR NOLAN, M.S., Assistant Professor of Agricultural Extension

WILLIAM ABBOTT OLDFATHER, Ph.D., Associate Professor of the Classics

THOMAS EDWARD OLIVER, Ph.D., Professor of Romance Languages

JOSEPH C. PARK, Director of Industrial Education, Oswego, N.Y.,

State Normal School

HARRY GILBERT PAUL, Ph.D., Assistant Professor of the English Language and Literature

Francis Marion Porter, M.S., Instructor in General Engineering Drawing

MAURICE HENRY ROBINSON, Ph.D., Professor of Industry and Transportation

SIDNEY ARCHIE ROWLAND, JR., A.B., Assistant in Mathematics
HAROLD ORDWAY RUGG, B.S., C.E., Instructor in History of Education
WILLIAM FREDERICK SCHULZ, Ph.D., Assistant Professor of Physics
DAVID LEONARD SCROGGIN, Instructor in Mechanical Engineering
GEORGE WALLACE SEARS, M.S., Assistant in Chemistry
ORRIN HAROLD SMITH, A.M., Assistant in Physics
WILLIAM HERSCHEL SMITH, B.S., Assistant in Animal Husbandry
ARTHUR JERROLD TIEJE, Ph.D., Assistant in English
RALPH EARLE TIEJE, A.M., Assistant in English
VINCENT HOLLIS TODD, Ph.D., Fellow in German
GUSTAF ERIC WAHLIN, Ph.D., Instructor in Mathematics
HENRY BALDWIN WARD, Ph.D., Professor of Zoology

# GENERAL STATEMENT

The Summer Session of the University of Illinois for 1912 opened on June 17, and closed on August 9, making a term of eight weeks. The Summer Session of 1913 will open on June 16, and close on August 8.

All of the courses extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of

the Session a certificate of such attendance, but university credit will not be given for six-weeks courses.

Students may register for courses aggregating eight credit hours or less.

## **PURPOSE**

The primary purpose of the Summer Session is to meet the needs of teachers in the public schools who wish to spend a part of the summer vacation in study or investigation. The greater number of courses offered are designed particularly for high school teachers, supervising officers, and teachers of special subjects (art, music, manual training, domestic science, agriculture, etc.) and for college instructors, school supervisors, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed, and several courses of a more general nature are provided to meet their needs.

#### PREPARATION FOR STATE TEACHERS' CERTIFICATES

To teachers who desire to make thorough preparation for the State certificate examinations, the Summer Session offers marked advantages, especially in connection with the professional subjects. The following excerpt from Circular No. 53 of the Office of the State Superintendent of Public Instruction indicates the method of securing State certificates:

"Certificates of qualification issued by the Superintendent of Public Instruction shall be valid in every district of the State during the good behavior of the holder. Such certificates shall be granted only upon a public examination, complete in itself, under such regulations and by such examiners, as the Superintendent of Public Instruction shall prescribe and appoint. The holder of any State certificate, while he continues to teach, shall, annually, before entering upon his duties as a teacher, present his certificate to the county superintendent for registration. A fee of one dollar shall be charged therefor and covered into the institute fund."

The examination will be held July 22 to 25, 1913. Candidates for the "General Certificate" must take the examination in Springfield. The "State Elementary-School Certificate", the "State High-School Certificate", and the "State Supervisory Certificate" may be obtained by examinations held on the above dates at the University of Illinois, provided that at least fifteen applicants notify the State Superintendent, prior to June 10, 1913, of their wish to take the examination here. Further information concerning the examinations may be obtained by addressing Hon. F. G. Blair, State Superintendent of Public Instruction, Springfield, Illinois.

#### GRADUATE WORK IN THE SUMMER SESSION

During the past three years the Summer Session has placed increasing emphasis upon graduate courses leading to the master's degree. The various departments which are closely related to high school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus the student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the coöperation of a university department, it may be possible to count the work toward the master's degree.

## SUMMER COURSES IN LIBRARY TRAINING

Beginning Monday, June 17, 1912, and continuing for six weeks the Library School conducted a Summer Session to which were admitted only those actually employed as librarians or library assistants, or under definite appointment to serve in such positions. The curriculum is planned to meet especially the needs of workers in public libraries and in high school libraries of Illinois and no tuition fee is charged students entering from this State; students entering

from libraries in other states pay a tuition fee of \$12. The work is under the general direction of the faculty of the Library School.

#### FEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special lectures. An extra laboratory fee is charged in some courses for materials used. Any single course may be taken for a fee of six dollars (\$6) and the laboratory fee, if there be any in connection with the course taken. A single course is understood to mean not more than two and one-half credit hours.

#### SCHOLARSHIPS

By ruling of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence showing the completion of the requisite amount of preparatory work.

By a more recent resolution of the Board of Trustees, the scholarship privilege is extended to persons graduating from the Illinois State normal schools during the academic year preceding the Session in which the scholarship is desired, and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained from the Director.

# REGISTRATION

Students will present themselves for registration on Monday, June 16, 1913.

# DESCRIPTION OF COURSES—SUMMER SESSION OF 1912

#### EXPLANATION OF ABBREVIATIONS

"S," which is prefixed to each of the courses offered, means "summer," and is used to distinguish such courses from those of the same number offered during the regular college year.

The number in parenthesis after each course indicates the number of hours of credit given. For a definition of the term "credit hour," see page 257.

There are usually two lectures, recitations, or laboratory periods for each credit hour.

Unless otherwise stated each course extends through the eight weeks of the session.

The asterisk (\*) indicates those courses for which graduate credit is granted. Only courses so marked count toward the master's degree. The credit in hours indicated for such courses has reference only to undergraduate students. Graduate students are not granted credit in terms of semester hours.

#### **AGRICULTURE**

(See also CHEMISTRY and ENTOMOLOGY.)

Assistant Professor Nolan, Mr. Smith, Mr. McDonald, Miss Evans

## A. COMMON SCHOOL AGRICULTURE

S 9. ELEMENTARY AGRICULTURE.—For teachers in elementary and rural schools: materials and methods suitable for the introduction of agriculture into the common schools in such a way as to lead to improved practice, or to the study of technical agriculture in the higher schools. (2½).

Miss Evans

#### B. SECONDARY SCHOOL AGRICULTURE

Primarily for science teachers in high schools: general agriculture adapted to secondary schools, with emphasis on the subject-matter of agriculture, and with such reference to the methods of presentation as the needs of the class demand. The work is planned to continue throughout four summer sessions, the course in each session to cover the work of one year of high school agriculture.

# 1912 SESSION-FIRST YEAR HIGH SCHOOL AGRICULTURE

- S I. Domestic Animals and Their Products.—(a) History, development, and characteristics of the various breeds of live stock; type from the standpoint of breeder, feeder, and butcher; judging; methods suitable for the secondary school. (b) Beef, pork, and mutton production. (2½).

  Mr. Smith
- S 2. FOREST, ORCHARD, AND GARDEN STUDIES.—(a) General forestry; life history of trees; influences which affect the growth; tree societies and forest conditions; enemies of the forest; the farm

woodlot; origin, condition, and extent of woodlots; woodlot management; practical studies of given woodlots. (b) Locating, laying out, and planting the orchard; care of trees; picking, storing, and marketing fruit. (c) Laying out and planning home gardens; cultural requirements of standard vegetable crops; beautifying home and school grounds. (2½).

Assistant Professor Nolan

1913 SESSION—SECOND YEAR HIGH SCHOOL AGRICULTURE

# (Given in 1912 also.)

- S 3. Agronomy—Farm Crops.—Grains; description and varieties; legumes, kinds, values, and uses; grasses, weeds, etc. (2½).

  Mr. McDonald
- S 4. Soil Elements and Crop Production.—Soil physics, origin, classification, moisture relations, and methods of handling; soil fertility, soil elements, and methods of soil improvement; crop production, planting, cultivating, and caring for staple crops. (2½).

  Mr. McDonald

1914 SESSION-THIRD YEAR HIGH SCHOOL AGRICULTURE

- S 5. FARM MECHANICS.—(21/2).
- S 6. FARM MANAGEMENT.— $(2\frac{1}{2})$ .

1915 SESSION-FOURTH YEAR HIGH SCHOOL AGRICULTURE

- S 7. PLANT AND ANIMAL IMPROVEMENT.—(21/2).
- S 8. Special Elective Agriculture.—(21/2).

# ART AND DESIGN

# Miss HILL

- S I. ELEMENTARY.—Form drawing from still life, cast, and nature; principles of outline and shading in pencil, charcoal, and crayon; lectures on the principles of perspective. (2). Miss Hill
- S 20. Art for the Common Schools.—The planning and execution of work in the several divisions of common school art study; design; black-board drawing. (2).

  Miss Hill

#### BIOLOGY

(See BOTANY, ZOOLOGY, and ENTOMOLOGY.)

#### BOTANY

Assistant Professor Hottes, Mr. Lehenbauer
Note:—A number of informal meetings and excursions are

planned to afford students registered in botany an opportunity for gaining facility in the use of the analytical key of the Manual, and for becoming acquainted with the local flora.

S 21. PLANT PHYSIOLOGY.—The more important physiological processes of plants. Text: Coulter, Barnes, and Cowles, Vol. 2. A Text-book of Botany. (Laboratory Fee \$1.00.) (2½).

Assistant Professor Hottes, Mr. Lehenbauer

Prerequisite: Entrance credit in botany or its equivalent.

S 22. TECHNIQUE AND ELEMENTARY HISTOLOGY.—Methods of collecting and preserving material for the classroom; preparation of permanent slides and museum specimens; anatomy of the vegetative organs and its relation to their function. Text: Stevens' Plant Anatomy, 2d edition. (Laboratory Fee \$2.00.) (2½).

Assistant Professor Hottes

Prerequisite: Botany S-21 or its equivalent.

#### Courses for Graduates

\*S IOI. CYTOLOGY.—The influence of external agents on the cell; special subjects for investigation; reports; discussion of current literature and research results.

Assistant Professor Hottes

\*S 102. Physiology.—The effects of external stimuli on growth and movement; reports; discussions of recent literature and research results.

Assistant Professor Hottes

#### **CHEMISTRY**

Assistant Professor Balke, Dr. Burgess, Dr. Derick, Dr. Mc-Carthy, Dr. Howe, Mr. Egan, Mr. Sears, Mr. Kamm

Note:—Graduate students whose major subject is not chemistry or agriculture may take for their graduate work S 5a, S 9, S 9a, S 9b, S 14, or S 13a. Students whose major subject is chemistry may take S 111.

S I. ELEMENTARY CHEMISTRY.—General inorganic chemistry; non-metallic elements. Illustrated lectures; recitations; laboratory. Alexander Smith's General Chemistry for Colleges. (5).

Assistant Professor Balke, Dr. McCarthy, Mr. Egan, Mr. Sears

- S ia and S ib. Inorganic Chemistry.—(For students who have had one year of high school chemistry, or inorganic chemistry for engineering students.) (4). Assistant Professor Balke
  - S 2. DESCRIPTIVE INORGANIC CHEMISTRY.—(Continuation of

S 1). The metallic elements, their compounds. Recitations; laboratory. Alexander Smith's General Chemistry for Colleges. (2).

Prerequisite: Chemistry I. Assistant Professor Balke

- S 3. QUALITATIVE ANALYSIS.—Lectures; recitations; laboratory. Noyes and Smith's Qualitative Analysis. (3). Dr. McCarthy Prerequisite: Chemistry 1.
- \*S 5a. ELEMENTARY QUANTITATIVE ANALYSIS.—Gravimetric and volumetric methods; the stoichiometrical relations; the fundamental laws of chemistry and their applications to the study of solutions. Lectures; recitations; laboratory. Lincoln and Walton's Exercises in Quantitative Analysis. (5).

  Dr. Burgess

Prerequisite: Chemistry 1, 3.

- \*S 9 and 9a. Organic Chemistry.—The more typical and simple organic compounds; important classes of derivatives of carbon. Moore's Outline of Organic Chemistry; Noyes' Organic Chemistry for the Laboratory. (5). Dr. Derick, Mr. Kamm Prerequisite: Chemistry 2, 3.
- S 9b. Organic Synthesis.—Continuation of S. 9a. Text: Noyes' Organic Chemistry for the Laboratory. (2).

Dr. DERICK, Mr. KAMM

Prerequisite: S 9a.

\*S 14. ORGANIC CHEMISTRY (advanced).—Lectures; recitations.
Noyes' Organic Chemistry. (3).

Dr. Derick

Prerequisite: Chemistry S-9 or equivalent.

S II and \*S III. RESEARCH.—Inorganic, physical, organic, or analytical chemistry.

Assistant Professor Balke, Dr. Burgess, Dr. Derick, Dr. Mc-Carthy, Dr. Howe

(Subject to approval of Graduate School Faculty.)

- \*S 13a. AGRICULTURAL ANALYSIS.—Gravimetric determination and separation of the more important constituents of soils, fertilizers, and agricultural products; chemical analysis of food stuffs, such as grains, fodders, and dairy products. Lincoln and Walton's Elementary Exercises in Quantitative Analysis. (5). Dr. Burgess
- S 15. Physiological Chemistry.—Food nutrients, the body tissues and fluids; the urine, both normal and pathological; the processes which take place in the animal body. Lectures; demonstrations; conferences; practical work. (Open to both graduates

and undergraduates.) Hammarsten's Text Book of Physiological Chemistry; Hawk's Practical Physiological Chemistry. (5).

Dr. Howe

Prerequisite: Two years' work in chemistry.

S 17. TEACHERS' COURSE.—(1). Assistant Professor Balke

## GENERAL ENGINEERING DRAWING

#### Mr. Porter

- S I. ELEMENTS OF DRAFTING.—Freehand and mechanical lettering; practice in the use of instruments on standard set of working drawing plates; tracing, machine sketching, isometric and oblique projection, and perspective. (Required of all engineering students.) Miller's Mechanical Drafting. (4).

  Mr. Porter
- S 2. Descriptive Geometry.—Problems relating to the point, line, and plane; the properties of surfaces; intersections and developments of surfaces. Miller's Descriptive Geometry. (4).

Mr. Porter

#### **ECONOMICS**

# (Including Accountancy)

Professor Robinson, Mr. Martin, Mr. Dowrie

S 2. Principles of Economics.—The general principles of economics with special reference to the experience of the United States. Seager's *Economics* (Briefer Course). (The equivalent of Economics 2.) (2½).

Prerequisite: Two years of university credit.

S 6. Business Organization.—The adaptation of organization to the nature of business enterprises; the characteristics and relative advantages of the individual proprietorship, partnership, and the corporation; organization for operating purposes and its effect on efficiency. (Open only to teachers of commercial branches. See also Accountancy S 2.) Robinson's Business Organization and Management. (2½).

Professor Robinson

Prerequisite: Economics S 2 or its equivalent.

\*S 116. PRESENT DAY SOCIAL AND ECONOMIC PROBLEMS.— Trusts and the tariff; the regulation of railways and public service corporations; money, prices, and the cost of living; the rate of wages and the conditions of labor in the great industries. (For teachers of economics, political science, history, and commerce.) (2½). Professor Robinson

#### ACCOUNTANCY

S 2. Principles of Accountancy.—The accounting for various types of business organization, such as the partnership, corporation, etc.; the designing of accounting systems; the treatment of bad debts, goodwill, depreciation, suspense, secret reserves, and the like. Open to teachers of bookkeeping and those who have had the first semester of Accountancy I or its equivalent. (2½).

Mr. MARTIN

#### EDUCATION AND PSYCHOLOGY

Professor Bagley, Assistant Professor Hollister, Mr. Miller, Mr. Rugg

(Courses S 2, S 3, S 9, and S 20 are granted graduate credit.)

- S I. Principles of Teaching.—The function of education; formal and informal education; fundamental principles of physical and mental development and their relation to the art of teaching; a brief survey of standard methods of instruction; the leading principles of school hygiene. (2½).

  Mr. Miller
- \*S 2. EDUCATIONAL VALUES AND METHODS.—The criterion of function; classification of functions; criteria of value; an examination of the principal subjects of the school curriculum with especial reference to the relation of standard methods of organization and teaching to the principles of function and value. (2).

Professor Bagley

- \*S 3. School Organization and Administration.—The historical background of the American public school system; units of administration; supervision; teachers' qualifications; community adjustments; the administration of instruction. Lectures; reading; reports. (2½).

  Assistant Professor Hollister
- S 4. High School Administration.—Organization and development of the American high school; comparison with secondary schools of Europe; program of studies, its underlying principles and the means of making it effective; the school as a social group. Hollister's High School Administration. (2½).

Assistant Professor Hollister

S 6. HISTORY OF EDUCATION.—The development of educational

theory and practice in their relation to the history of civilization. Monroe's History of Education, Brief Course. (2½). Mr. RUGG

\*S 9. Educational Psychology.—The biological aspects of learning; the analysis of the mental processes involved in learning; the economy and technique of learning; application of methods and results to the problems of the schoolroom. Colvin's Learning Process. (2).

Professor Bagley

\*S 20. Theory of Supervision.—Typical problems in administration and teaching. (1). Professor Bagley

#### **ENGLISH**

Professor Clapp, Assistant Professor Gray, Assistant Professor Paul, Mr. Halliday, Dr. A. J. Tieje, Mr. R. E. Tieje, Mr. Buchen

#### A .- LITERATURE AND LANGUAGE

S 1a. INTRODUCTORY COURSE.—English literature to Milton. (This course with S 1b is equivalent to English 1 as described in the general Description of Courses, in Part III. The two parts may be taken in successive summers, or simultaneously.) Cunliffe's Century Readings. (2).

Mr. R. E. Tieje

Prerequisite: Three years at an approved high school.

S 1b. Introductory Course.—English literature from Milton to Burns. (This course with S 1a is equivalent to English 1 as described in the general Description of Courses, in Part III.) Cunliffe's Century Readings. (2). Dr. A. J. Tieje

Prerequisite: Three years at an approved high school.

S 16. AMERICAN LITERATURE.—Page's Chief American Poets.
(2). Assistant Professor Paul

Prerequisite: English I and 2 or an equivalent.

S 34. Nineteenth Century Essayists and the Growth of the Magazines.—(2). Professor Clapp

Prerequisite: Two years of college English or an equivalent.

S 15. Teachers' Course.—Outlining a course in English; typical classics used in high schools; the correcting of themes; present tendencies in English teaching. (2).

Assistant Professor PAUL

Prerequisite: The consent of the instructor.

\*S. 5. ELIZABETHAN DRAMA. (2). Assistant Professor Grav Prerequisite: Three years of college English or an equivalent. \*S 37. THE NOVEL IN THE EIGHTEENTH CENTURY. (2).

Professor CLAPP

Prerequisite: Three years of college English or an equivalent.

\*S 8b. Old English (Anglo-Saxon) Poetry.—Beowulf.—
Wyatt's Beowulf. (3) Dr. A. J. Tieje
Prerequisite: Course 8a or an equivalent introduction to Old

English.

#### B.—RHETORIC

# I. Composition

S ia. Rhetoric and Themes.—(This course is equivalent to the first semester of Rhetoric I as described in the general Description of Courses, in Part III.) Woolley's Handbook of Composition; Scott and Denney's Paragraph Writing. (3).

Mr. Buchen, Mr. R. E. Tieje

Prerequisite: Three years at an approved high school.

S ib. Rhetoric and Themes.—(This course is equivalent to the second semester of Rhetoric I as described in the general Description of Courses, in Part III.) Scott and Denney's Paragraph Writing. (3).

Mr. Buchen

Prerequisite: Rhetoric 1a or an equivalent.

S 3. Advanced Composition.—Short themes with an occasional long theme. (2). Assistant Professor Gray Prerequisite: Rhetoric 1 or an equivalent.

# II. Public Speaking

S 7. Public Speaking.—Reading aloud and oral composition; 1-ctures and individual instruction. (This course is the equivalent of the second semester of Rhetoric 7 as described in the general Description of Courses, in Part III.) (2). Mr. Halliday

Prerequisite: Rhetoric I and the first semester of Rhetoric 7 or an equivalent.

S 4. The Art of Debate.—Brief writing and extemporaneous presentation of arguments in formal debate. Foster's Argumentation and Debating. (1).

Mr. Halliday

Prerequisite: Rhetoric 7 or an equivalent.

S 8. Interpretative Reading.—English classics selected from among those most frequently taught in the high school. (1).

Prerequisite: Rhetoric 7 or an equivalent.

#### ENTOMOLOGY

# Assistant Professor Folsom, Mr. Glasgow

- S I. GENERAL FIELD AND LABORATORY COURSE.—The essential facts of entomology, emphasizing those of economic importance. Lectures; laboratory studies; field observations. (For high school teachers.) Folsom's Entomology with Reference to Its Biological and Economic Aspects. (2½). Assistant Professor Folsom
  - S 2. ADVANCED COURSE.—(2½). Assistant Professor Folsom
- S 3. Economic Entomology.—Common injurious insects in all their stages of development; their injurious activities; approved methods of control. Lectures; laboratory; field work. (Equivalent to the economic entomology [Entomology 4] required of agricultural students.) (2½). Assistant Professor Folsom

#### FRENCH

#### Professor OLIVER

- S I. BEGINNERS' COURSE.—Pronunciation; grammar; composition; reading of easy texts. Aldrich and Foster's Foundations of French; Super's French Reader. (4). Professor OLIVER
- S 2. READING OF MODERN FRENCH.—Rapid reading of modern authors; composition; conversation. Everyday French, Bronson; Colomba, Mérimée; Pêcheur d'Islande, Loti; La Mare au Diable, George Sand; Bataille de Dames, Scribe et Legouvé; Mademoiselle de la Seiglière, Sandeau. (2). Professor OLIVER

Prerequisite: French 1, or the equivalent.

S 4. Advanced Composition and Conversation.—(1).

Professor OLIVER

Prerequisite: Two years' university work in French, or the equivalent.

S 125. Seminar.—Graduate work in the Romance languages.

Professor Oliver

#### GERMAN

Professor Handschin, Mr. Barto, Mr. Held, Mr. Todd

S I. BEGINNERS' COURSE.—(4).

Professor Handschin, Mr. Held

S 2. Intermediate Course. (3). Mr. Barto Prerequisite: German 1, or the equivalent.

S 3. Prose Reading.—Reading of narrative prose; sight translation; composition. (3). Mr. Todd

Prerequisite: German 3, or the equivalent.

S 4. READINGS FROM THE CLASSICS.—Lessing's Minna von Barnhelm, Schiller's Jungfrau von Orleans. (3). Mr. Barto Prerequisite: German 4. or the equivalent.

Note: Students securing a grade of 85 or more and doing additional work assigned by the instructor may supplement the work of S 2, S 3, or S 4, making them equivalent to courses 3, 4, or 5 respectively, the additional credit to be indicated at registration.

S 5. Prose Composition.—Translation of ordinary prose into German; study of idiomatic constructions; practice in free composition in German. (2).

Mr. Held

Prerequisite: Two years' university work in German, or the equivalent.

S 6. Modern Fiction.—Reading of modern authors, such as Keller, Meyer, and Storm. (2).

Mr. Todd

Proposition Two work in Common or the

Prerequisite: Two years' university work in German, or the equivalent.

S 9. Teachers' Course.—Place, aim, and scope of the study of German in the high school; discussion of methods and the chief difficulties in teaching German. Observation work in the beginners' course. (1).

Professor Handschin

Prerequisite: Experience in teaching German, or three years' university work in German, or the equivalent.

S II. GOETHE'S FAUST.—Critical reading of the first part of Faust. (11/2).

Professor Handschin

Prerequisite: Three years' university work in German, or the equivalent.

#### HISTORY

# Professor Ford, Professor McCormac

- S 1a. Medieval European History to 1300.—Introductory course corresponding, for the period covered, to History 1. (The course offered in 1913 will probably cover the period from 1300 to 1648.) (2½).

  Professor Ford
- S 3b. AMERICAN HISTORY, 1783-1860.—A part of the usual introductory course in American history. (The course offered in

1913 will probably cover the recent history of the United States.)
(2½).

Professor McCormac

S 13. The RISE OF THE AMERICAN REPUBLIC.—The colonies in the eighteenth century and their development into the American nation; particular attention to the years following 1748.

Professor McCormac

Prerequisite: History 3. (For advanced work in European history see Political Science S2.)

#### LATIN

Professor Barton, Associate Professor Oldfather

- S I. TERENCE.—The language, verse, and dramatic technique of two plays of Terence. (2). Associate Professor OLDFATHER
- S 2. Satire.—A large part of the Satires of Horace; selections from Juvenal. Lectures on the history of satire and connected problems in Latin literature. (1½).

Associate Professor OLDFATHER

- S 106. Introduction to Latin Comedy.—Lectures; interpretations; assigned readings. (1½). Associate Professor Oldfather
- S 3. Teachers' Course.—The position of Latin in the school program; methods of instruction; the essentials of Latin instruction in the high school; books and equipment. (1½).

Professor BARTON

#### LIBRARY SCIENCE

Miss Curtis, Miss Armstrong, Miss Abel

Note:—The courses indicated covered six weeks and received no university credit. Only people employed in libraries were admitted.

- S I. CLASSIFICATION; CATALOGING; BOOK NUMBERS.—Five times a week.
- S 2. REFERENCE WORK.—The selection and use of reference books suited to the small public library. Twice a week.
- S 3. Selection of Books.—Principles of book selection and lectures on subject bibliography. Twice a week.
- S 4. WORK WITH CHILDREN.—Selection and discussion of children's books; administration of children's libraries; classification and cataloging. Twice a week.

- S 5. ORDER AND ACCESSION; LOAN DEPARTMENT; BINDING AND REPAIR. Twice a week.
  - S 6. LIBRARY ADMINISTRATION AND EXTENSION. Twice a week.

## MANUAL TRAINING

# Mr. PARK, Mr. DUNCAN

(See also Art and Design, General Engineering Drawing, and Mechanical Engineering.)

- S I. Shop Administration.—History and theory of industrial education; typical schools and systems of manual training leading to a better understanding of the aims and methods employed for the promotion of industrial education; organization of work; equipments and materials. (2½).

  Mr. Park
- S 2. Woodworking.—(A course for teachers in the 7th and 8th Grades and high schools.) Tools—uses, names of parts, adjustments, care, how to sharpen; the making of important joints used in wood construction; the designing and making of arts and crafts furniture; notebook work, covering talks, papers, problems; work at the bench. (3).

  Mr. Park, Mr. Duncan

#### MATHEMATICS

Assistant Professor Emch, Dr. Wahlin, Mr. Carscallen, Mr. Barnhart, Dr. Denton

- S 2. Advanced Algebra.—(Equivalent to Mathematics 2.) Algebraic reductions; variables and functions; equations; inequalities; mathematical induction; variation; progressions; complex numbers; limits; infinite series; undetermined coefficients. (Theory of equations given with Math. S6.) Rietz and Crathorne's College Algebra. (3).

  Dr. Wahlin
- S 4. Plane Trigonometry.—(Equivalent to Mathematics 4.) Rothrock's Elements of Plane and Spherical Trigonometry. (2).

Assistant Professor EMCH

- S 6. Analytical Geometry.—(Equivalent to Mathematics 6.) Plane and solid analytic geometry; theory of equations; graphs. Rigg's Analytic Geometry. (5).

  Mr. Barnhart
- S 7. DIFFERENTIAL CALCULUS.—(Equivalent to Mathematics 7.) Townsend and Goodenough's Essentials of Calculus. (5)

Dr. DENTON

- S 9. Integral Calculus.—(Equivalent to Mathematics 9.) Townsend and Goodenough's Essentials of Calculus. Two sections.

  (3). Mr. Carscallen
- \*S 16. DIFFERENTIAL EQUATIONS.—(Equivalent to Mathematics 16.) General linear equations with constant coefficients; special forms of differential equations of higher order; integration in series. (3).

  Dr. Wahlin
- \*S 27. PROJECTIVE GEOMETRY.—(Equivalent to Mathematics 27.) Fundamental concepts; anharmonic ratio; projective pencils and ranges; projective transformation and groups; conics and quadric surfaces; pencils and ranges of conics; quadratic transformations and projective theory of cubes; applications in mechanics.

  (3). Assistant Professor EMCH

#### MECHANICAL ENGINEERING

# (See also Manual Training.) Mr. Duncan, Mr. Scroggin

- S I. PATTERN-SHOP.—The care and use of tools; the construction of patterns, core-boxes, and the use of machines such as are found in modern pattern-shops.

  Mr. Duncan
- S 3. Machine-Shop.—Chipping and filing; elementary work on lathe, drill press, shaper, planer, and grinding machine. (2½).

  Mr. Scroggin
- S 4. Advanced Machine-Shop.—The use of milling machine, screw machine, gear cutter, boring mill, and turret lathe; erecting and testing machines and gas engines. (2½). Mr. Scroogin

Note: Lectures on tools and shop processes are given frequently, and inspection trips to shops in the local and adjoining towns are made in connection with all classes in shop practice. A student may finish one full year's work in the shop during the summer term.

# MECHANICS, THEORETICAL AND APPLIED

# Mr. Noerenberg, Mr. Ensign, Mr. Farwell

S 7. Analytical Mechanics—The first half of Analytical Mechanics as given in Maurer's Technical Mechanics. Daily; (3).

Mr. Noerenberg

Prerequisite: Mathematics 7; registration in Mathematics 9.

S 8. Analytical Mechanics.—The second half of Analytical Mechanics as given in Maurer's Technical Mechanics. Daily; (2½).

Mr. Ensign

Prerequisite: Mathematics 9; T. and A. M. 7.

S 9. Resistance of Materials.—Elementary mechanics of materials; experiments and investigations in the materials laboratory; problems in ordinary engineering practice. (Equivalent to T. and A. M. 9.) Merriman's Mechanics of Materials. Five one-hour and two two-hour periods a week; (3½). Mr. Ensign, Mr. Farwell

Prerequisite: T. and A. M. 7; registration in T. and A. M. 8.

S 10. HYDRAULICS.—The pressure and the flow of water and its utilization as motive power; the observation and measurement of pressure, velocity, and flow; power and efficiency; the determination of experimental coefficients. Recitations; laboratory. Text: Hoskin's Hydraulics. Four one-hour and two two-hour periods a week; (3).

Mr. FARWELL

Prerequisite: T. and A. M. 8.

Note: With the opening of the hydraulic laboratory for the Summer Session, arrangements may be made to use its facilities for special experimental work.

S 14. ELEMENTS OF MECHANICS.—The principles of kinematics, kinetics, and statics, and their application. Morley's *Mechanics for Engineers*. (For architects and others who have not taken the calculus.) (4).

Prerequisite: Mathematics 2, 4.

#### MUSIC

#### Professor Mills

S I. Theory of Music.—Eartraining, intervals, triads, chords of the seventh and ninth, and harmonization of melodies by means of the principal triads. Original melody writing. Professor Mills

S 2. HISTORY OF MUSIC.—From the Christian era to the present time.

Professor MILLS

S 3. MUSICAL FORM, ANALYSIS, AND APPRECIATION.

Professor MILLS

S 4. ADVANCED HARMONY AND COUNTERPOINT.—Modulation; chromatic chords; elements of counterpoint. Professor MILLS

S 5. Chorus.— Professor Mills

#### PHYSICAL TRAINING FOR MEN

#### Director HANA

S I. GYMNASIUM Exercise.—Calisthentic drills and elementary heavy apparatus work.

Mr. Hana

S 2. GYMNASIUM PRACTICE.—Advanced heavy apparatus work.

S 3. SWIMMING. Mr. HANA

# PHYSICAL TRAINING FOR WOMEN

## Miss Brooks

S 1. PRACTICE IN FREE GYMNASTICS, LIGHT APPARATUS, FOLK AND GYMNASTIC DANCING, TENNIS, AND OTHER GAMES. Miss BROOKS
S 2. SWIMMING. Miss BROOKS

#### **PHYSICS**

Assistant Professor Knipp, Assistant Professor Schulz, Mr. Smith, Mr. Jones, Mr. Anderson

S 2a. GENERAL PHYSICS.—Wave motion, sound, and light. Lectures; experimental demonstrations; recitations. (1½).

Assistant Professor Schulz, Mr. Anderson

Prerequisites: Plane geometry; high school algebra; plane trigonometry desired.

S 2b. Introductory Laboratory Physics.—(Laboratory course in wave motion, sound, and light, to accompany S 2a.) Schulz's Laboratory Manual. (1½).

Assistant Professor Schulz, Mr. Jones

Prerequisite: Same as for S 2a.

S 15. ELECTRICITY AND MAGNETISM.—Laboratory; discussions; recitations. Cahart and Patterson's *Electricity and Magnetism*. (1½). Mr. Smith

Prerequisite: A course in general physics.

S 18. Teachers' Course.—Practical problems involved in teaching elementary physics; methods of conducting lectures and laboratory work with special reference to physical manipulation. Notes by Assistant Professor F. R. Watson. (1½). Mr. Smith

Prerequisite: A course in general physics, or teaching experience in physics,

S 20b. Light.—Spectroscopy. Laboratory; lectures on the theory and use of prism, grating, and echelon spectroscopes, and

interferometers. References:—Baly's Spectroscopy and Wood's Physical Optics. Assistant Professor Schulz

Prerequisite: Consult instructor.

S 4. Advanced Electrical and Magnetic Measurements.—Laboratory; lectures; assigned reading; reports. Carhart and Patterson's *Electricity and Magnetism*. (1½). Mr. Smite

Prerequisites: A course in general physics and calculus.

S 21a. ELECTRICAL DISCHARGE IN VACUUM TUBES.—Experimental lectures; assigned reading; reports. References:—McClung's Conduction of Electricity Through Gases. (1)

Assistant Professor KNIPP, Mr. ANDERSON

Prerequisite: A course in general physics.

S 21b. CONDUCTION OF ELECTRICITY THROUGH GASES.—Advanced laboratory; a number of the more classical experiments, including a determination of v and e/m of the various carriers of electricity. References:—Thomson's Conduction of Electricity Through Gases, and current literature. (1).

Assistant Professor Knipp, Mr. Anderson

Prerequisites: A course in general physics and calculus.

S 131. Investigation of Special Problems.—Advanced laboratory; special problems. (1 or 2).

Assistant Professors KNIPP and SCHULZ

S 133. SEMINAR AND THESIS.—Once or twice a week.

Assistant Professors KNIPP and SCHULZ

# PHYSIOGRAPHY

# Mr. DECKER

- S I. COURSE FOR TEACHERS.—The most common topographic forms met with in the Mississippi Valley and in other sections in the United States; the processes which have brought them into existence; and their effect on the life which they environ. Lectures; laboratory; field trips. (Laboratory fee \$1.) (4). Mr. Decker
- S 2. Advanced Physiography.—Selected physiographic areas and their life relations; the local environment as the initial problem. Lectures; laboratory; field trips. (Laboratory fee \$1.) (2½).

Mr. DECKER

# POLITICAL SCIENCE

# Professor Geiser

S I. AMERICAN NATIONAL GOVERNMENT.—The national govern-

ment of the United States: its origin, development, and structure; relations between the national and state governments. (For teachers of history and civics.) (2½). Professor Geiser

\*S 2. Modern European Governments.—The governments of western Europe, with special attention to France and Germany; the national political systems of France, Germany, Switzerland, and Belgium. Lectures; assigned readings; reports. (For advanced undergraduates and graduate students.) (2½). Professor Geiser

# RHETORIC

(See ENGLISH.)

# SOCIOLOGY

#### Professor HAVES

- S i. Principles of Sociology and Their Application to Living Problems.—(2½) Professor Hayes
- S 3. Social Evolution.—The customs, practices, and ideas of different peoples, savage, barbarous, and civilized, to reveal the method of progress. (2½).

  Professor Hayes

#### ZOOLOGY

# Professor Ward, Mr. Coutant, Mr. Cort

- S I. ELEMENTARY GENERAL ZOOLOGY.—General morphology, physiology, ecology, economic relations, suited to the needs of the general student and of teachers in secondary schools. (Laboratory fee, \$2.00.) (4).

  Professor Ward, Mr. Cort
- S 21. Introduction to Zoological Research.—Investigation of topics, usually repeating the work of earlier investigators; the morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. (Laboratory fee, \$2.00). (2 to 5).
- S 27. MICROSCOPICAL TECHNIQUE.—Approved methods of preserving and mounting animals for microscopical study; talks and discussions; the choice of methods which can be used to advantage in laboratories with only a moderate equipment; practice in narcotization, killing, fixing, hardening, clearing, infiltrating, embedding in paraffine or celloidin, sectioning, and staining; methods for making both temporary and permanent preparations. Laboratory. (Laboratory fee, \$2.00.) (2½).

### THE COLLEGE OF LAW

#### AIM OF THE COLLEGE

It is the aim of the College to furnish its students with such a training as will best fit them for the practice of the law. A mere knowledge of what the law is will not suffice. The student must learn the reasons which have made it what it is. These can be mastered only by studying the law in the light of its historical development. No special course is offered on the history of the law; but it is sought to present each subject so that the principles peculiar to it may be historically understood. It is also the aim of the College that the courses shall be so presented as to familiarize the student with legal methods of reasoning and to equip him with legal habits of thought. It is believed that the case method of instruction, properly understood and applied, is best adapted to accomplish these objects.

#### **ADMISSION**

With the exception of special students as defined below, applicants for admission to the College of Law must have obtained credits for one year's work in another college of this University or of some other institution of recognized standing; provided, however, that an applicant who lacks not more than four semester hours of such credit may be admitted on condition of making up the deficiency before beginning the second year of law study.

#### SUGGESTED PREPARATORY COURSES

Below is given a schedule of studies recommended by the faculty of the College of Law for students taking one year in the College of Literature and Arts to meet the requirement for admission to the College of Law. In addition a schedule of studies covering two years in the Literature and Arts course is added for the guidance of those who may be able to take two years of pre-legal work.

#### One-Year Course in Preparation for Law

First semester	SECOND SEMESTER
Hours   Hours   1	Hours   Hours   Hours   Physical Training   1   1   Rhetoric   3   Foreign language   4   History   1   3   English   1   4     17

The courses in military and physical training, Rhetoric 1, and eight hours in foreign language are required of all freshmen in the College of Literature and Arts. Latin is strongly urged for all students intending to study law; but those who have not had the necessary preparation for college courses in Latin should substitute a modern language, preferably French or German.

#### Two-Year Course in Preparation for Law

Students who are able to give two years to preparatory work are recommended to take the schedule given below.

FI	RST	YEAR			
FIRST SEMESTER			SECOND	SEMESTER	
Military 2 Phys. Training 1 & 1a Rhetoric 1 Foreign language Economics 1 Mathematics 2 & 4	. 1 . 3 . 4	Physical Rhetoric Foreign History	Training 1language 11	2 1	1 3 4 3
Military 2	1 r 4 3	Science Political Economi Philosop	or langues Science cs 3	1age 3	3 or 4
16 or	17				16 or 17

# COMBINED COURSE IN LITERATURE AND ARTS AND LAW

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. (See page 144.)

#### SPECIAL STUDENTS

Students twenty-one years of age, or over, who are not able to satisfy the regular requirements for admission, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

No one may continue as a special student for more than two years except by special permission of the faculty, application for which should be made through the Dean.

#### ADVANCED STANDING

After matriculating, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first year subjects only.

#### INSTRUCTION

Courses in substantive law are taught by analyzing and comparing cases which have been carefully selected and arranged in case books. References, however, are constantly made to leading text books, and they are recommended and in certain courses required for collateral reading.

Courses in the law of procedure are taught from the leading text books, supplemented by the examination of statutes and adjudged cases, and students are brought into as close touch as possible with actual practice, both by the method of instruction in these courses and by means of the Moot Court.

The instruction gives a thorough training in the common law, which constitutes a proper foundation for the practice of law in any state.

The faculty of the College is impressed with the idea that a state university should teach the law of the state which supports the school, and to that end, without neglecting the general principles that lie at the foundation of the common law, especial attention is given in all courses to grounding the student thoroughly in the law as

determined by the courts of Illinois. Throughout the entire course, the students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class by students and instructor. In the Moot Court and through the course in Illinois procedure, especial attention is paid to the rules of pleading and practice that obtain in the State of Illinois.

#### MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class; every Tuesday afternoon of the first semester for the second year class; and every Monday afternoon of the second semester for the second and third year classes together. The Court is presided over by the Dean, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. Attendance is compulsory with second and third year classes. It is the purpose to have the workings of the Moot Court parallel proceedings in the various courts of the State. Students are trained in the preparation of legal documents and in the trial of cases, both civil and criminal.

The Moot Court Bulletin is published every other week of the college year, and in this are printed the statements of cases, the briefs of opposing counsel, and the opinions of the presiding judge.

#### SPECIAL LECTURES

Addresses by prominent members of the bench and bar on practical features of the law are given from time to time during the year. In 1911-12 two courses of lectures were given by the following: Nathan William MacChesney, A.B., LL.B., of the Chicago Bar B. M. Chiperfield, of the Illinois Bar

#### THE LAW LIBRARY

The Law Library contains 14,000 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the English reports; the statutes of the various states; digests of the state reports; several sets of special reports, such as the American Reports, American State Reports, American Decisions, and Lawyers' Reports Annotated; all the great Encyclopedias and Digests; and a carefully selected collection of text books and legal periodicals.

The library is growing rapidly, new sets of reports and new

digests, text books, and periodicals being continually added, together with the continuations of the reports and periodicals already in the library.

#### REQUIREMENTS FOR GRADUATION AND DEGREES

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; courses 8, 10, 11, 12, 18, 20, 26 (second year); courses 4a, 15, 17, 19, 21, 22, 26 (third year); and enough of the other courses offered to make 84 hours of credit.

#### DEGREE OF DOCTOR OF LAW

The degree of Doctor of Law (J. D.) will be granted to students who comply with the following conditions:

- 1. Complete the work required for the degree of Bachelor of Laws.
- 2. Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Bachelor of Laws.
  - 3. Obtain a minimum average grade of 85 in the College of Law.
- 4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirement hereinafter set out.

Students who receive the A.B. degree after registering in the College of Law, and, by counting courses in law toward both the degree of A.B. and the degree of LL.B., take both degrees in six years, must during the first year in the College of Law take four hours in history or the social sciences.

#### Rules concerning Theses

The following are the rules concerning theses presented for the degree of Doctor of Law: I. The thesis must be on a subject approved by the Dean of the College of Law after consultation with him as to the proposed method of treatment. 2. The subject of the thesis must be filed with the Secretary on or before December 20. 3. The thesis must be typewritten on paper 8½xII inches, with at least one inch margin at the top, bottom, and sides. 4. It should contain not less than 4,000 nor more than 10,000 words. 5. In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for

which the cases have been examined. 6. The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

## CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE BAR EXAMINATION

Any student, although not a candidate for a law degree, is, if he has taken the following courses: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 18, 20, 26 (2nd and 3rd year), 4a, 15, 17, 19, 21, and 22, entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies of Rule 39 of the Supreme Court of the State of Illinois, relative to admission to the bar.

As to other requirements for admission to the bar in the State of Illinois, see Rule 39, in volume 204 of the Illinois Reports, at page 20.

#### COURSE LEADING TO THE DEGREE OF LL.B.

#### FIRST YEAR

FIRST SEMESTER: Contracts (Law 1); Torts (Law 2); Criminal Law (Law 5); Personal Property (Law 6).

SECOND SEMESTER: Contracts (Law 1); Torts (Law 2); Real Property (Law 3); Common Law Pleading (Law 4); Domestic Relations (Law 7).

#### SECOND YEAR

FIRST SEMESTER: Evidence (Law 8); Real Property (Law 10); Agency (Law 11); Equity (Law 12); Damages (Law 13); Moot Court (Law 26); Conveyancing (Law 29); Public International Law (Law 30).

SECOND SEMESTER: Evidence (Law 8); Equity (Law 12); Wills (Law 18); Equity Pleading (Law 20); Moot Court (Law 26); Sales (Law 9); Carriers (Law 14); Future Interests in Property (Law 27); Insurance (Law 28); Quasi-Contracts (Law 32); Public Service Companies (Law 34).

#### THIRD YEAR

FIRST SEMESTER: Illinois Procedure (Law 4a); Bills and Notes

(Law 15); Private Corporations (Law 17); Partnership (Law 19); Constitutional Law (a) (Law 22); Moot Court (Law 26); Municipal Corporations (Law 24).

SECOND SEMESTER: Private Corporations (Law 17); Suretyship (Law 21); Constitutional Law (b) (Law 33); Moot Court (Law 26); Mortgages and the Recording Acts (Law 23); Bankruptcy (Law 25); Conflict of Laws (Law 31).

#### PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Literature and Arts and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

#### LAW CLUBS

The law students have organized voluntary associations for the discussion of interesting and important questions of law, and for the trial of hypothetical cases of their own choice. Four of these societies are active at present. They are known as the Van Twiller, Witenagemot, John Marshall, and Fuller club courts.

#### SCHOLARSHIP PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of \$50 each and four of \$25 each.

## THE SCHOOL OF PHARMACY

For the faculty of the School of Pharmacy, see page 42.

#### HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859. Prior to that time there were but three schools of pharmacy in the country, and these were located in the eastern states.

While the primary object of the institution was to provide instruction in the science and art of pharmacy, other functions were developed. Thus, a code of ethics was early adopted by the members; successful efforts were made to bring about better relations between pharmacists and physicians; the pioneer pharmaceutical library was established; and for eighteen years beginning with 1868 a monthly journal, *The Pharmacist*—the first of its kind in the West—was published.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. Of the first class, but two students were graduated in 1861. The war caused a suspension of the teaching, and the school was not reopened until 1870. The great fire of 1871 destroyed the equipment, but pharmacists throughout Europe and America extended help to the institution, furnishing a library and an outfit of apparatus, which became the nucleus of the present equipment. In 1872 the instruction was resumed for the second time and has since continued without interruption.

In 1880 the members and graduates of the College took an active part in the formation of the Illinois Pharmaceutical Association, which in the following year secured the passage of the pharmacy law.

The twenty-fifth anniversary of the founding of the College was signalized by the removal of the College to a larger building at 465

State street. Up to this time instruction had been given mainly by means of lectures, laboratory work being entirely optional. Laboratory courses in pharmacy, chemistry, and vegetable histology were now made obligatory. A laboratory devoted entirely to prescription compounding was established in 1892.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois. In the management of the School, the trustees and officers have the assistance of an advisory board of pharmacists, elected by the registered pharmacists of the State through the Illinois Pharmaceutical Association.

#### LOCATION

The School of Pharmacy occupies the four upper floors in a building located at Michigan Boulevard and Twelfth Street. The building is a substantial brick structure, five stories in height, with a frontage of fifty feet on Michigan Avenue and one hundred seventy feet on Twelfth Street.

A half block east of the building is the Illinois Central Depot; and one block west are the Cottage Grove Avenue, Indiana Avenue, and Twelfth Street surface lines, and the Twelfth Street Station of the South Side Elevated Railroad.

On Michigan Avenue, immediately south of the School, are to be found some of the best low-priced boarding and rooming places in the city. Satisfactory accommodations may be readily secured within a short distance of the School.

#### **EQUIPMENT**

The east end of the building is occupied by lecture halls, of which there are three, arranged one above the other and having a seating capacity of from one hundred fifty to three hundred persons.

The laboratories are six in number, including one each for qualitative analysis, quantitative analysis, special work in chemistry, microscopy, manufacturing pharmacy, and dispensing. The total capacity of these laboratories is sufficient for the accommodation of 348 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains about two thousand volumes, including, in

addition to the usual works of reference, many rare books. Complete files of the leading pharmaceutical journals are an important feature.

#### COURSES OF INSTRUCTION

#### For the Degree of Graduate in Pharmacy

In the course leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-one hours weekly during two annual sessions of thirty weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

#### FOR THE DEGREE OF PHARMACEUTICAL CHEMIST

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied chemistry, and bacteriology, or to prepare themselves for positions under the Food and Drugs Act, this School offers a course leading to the degree of Pharmaceutical Chemist. It comprises two annual sessions of thirty-six weeks each, with instruction on five days each week, amounting to about thirty-three hours weekly, or a total of 2,300 hours in the entire course.

This course is partially concurrent with the shorter course and includes all the didactic instruction given in the latter. It consists largely of laboratory practice. In addition to the subjects mentioned above it embraces organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practice and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

#### ADMISSION

The regular session opens September 22, 1913. The shorter

course ends April 30, 1914; the longer course closes June 12, 1914.

Applicants for admission to the course leading to the degree of Pharmaceutical Chemist must be at least seventeen years of age and must be graduates of accredited high schools or furnish evidence of a preliminary education equivalent thereto.

Applicants for admission to the course leading to the degree of Graduate in Pharmacy must be at least seventeen years of age and must have completed one year of high school work or its full educational equivalent.

The entrance requirements of this school are those adopted by the American Conference of Pharmaceutical Faculties, of which this school is a member.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this college.

#### GRADUATION

In conformity with the usual custom of pharmaceutical schools, drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the course will be awarded the degree upon the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to fourteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree. Students who have successfully met the scholarship requirement, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fulfill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

#### STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized. The diploma of this School is, however, accepted in lieu of examination for registration in about ten states and territories; and in several other states, including New York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

#### FEES AND EXPENSES

For a statement of the fees, see page 124. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Actuary at the beginning of the course.

BOARD AND LODGING.—Good board and lodging, within a short distance of the School, can be had for from four to six dollars per week. This expense may be somewhat reduced by two or more students rooming together. The Actuary keeps a list of suitable boarding and rooming places, with their rates.

SELECTION OF SEATS.—Seats in the lecture halls and desks in the laboratories will be assigned to students by the Actuary, in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Actuary, together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

OPPORTUNITIES FOR EMPLOYMENT.—The Actuary keeps a register of students desiring employment and of pharmacists wishing to employ students. Students desiring employment are invited to correspond with him.

#### FURTHER INFORMATION

Further information may be found in the special announcement of this school, which may be obtained from the Actuary, School of Pharmacy, Michigan Avenue and Twelfth Street, Chicago, or the Registrar, University of Illinois, Urbana.

# PART III DESCRIPTION OF COURSES



## DESCRIPTION OF COURSES

#### **EXPLANATION**

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, the prerequisites given are Art and Design 1, 2, and 3. These three courses must be completed before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.

Credit is reckoned in semester hours, or simply hours. An hour is one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours, nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of hours each semester for which the course counts, are shown after each course, thus: I, II; (2). The Roman figures indicate semesters; the Arabic numerals in parenthesis indicate hours of credit for each semester for undergraduates. The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.

# ACCOUNTANCY (See Economics.)

#### AGRICULTURAL EXTENSION

FRED HENRY RANKIN, Superintendent and Assistant to the Dean, with rank of Assistant Professor

ARETAS WILBUR NOLAN, M.S., Assistant Professor

FRANCIS MARION SIMPSON, B.S., Assistant

AUGUSTA DILLMAN EVANS, A.B., Assistant

IAMES VAIL STEVENSON, A.B., Assistant

I. PRINCIPLES AND METHODS OF HIGH SCHOOL AGRICULTURE.—Features of agricultural science and practice best adapted to high school conditions; the best order and methods for their presentation; suiting course and instruction to the needs of the school community; what laboratory work shall be given; what apparatus may be used; what field work is practical. Practice teaching provided through coöperation with the local high school. II; (5).

Assistant Professor Nolan

Prerequisite: Two years' work in agriculture.

3. AGRICULTURAL EXTENSION TEACHINGS.—Extension enterprises and the way in which they may be of service to the people; farmers' institutes; agricultural extension schools; farmers' clubs and cooperative work in rural communities. II; (1).

Assistant Professor RANKIN

Prerequisite: Agricultural Extension 4.

4. COUNTRY LIFE PROBLEMS.—Problems of the farm; duties of citizenship; social, economic, and educational work in rural communities. Lectures. Required of all first-year students. I, II; (½).

Professor DAVENPORT and other members of the faculty

#### AGRICULTURE

(See Agricultural Extension, Agronomy, Animal Husbandry, Dairy Husbandry, Horticulture, and Veterinary Science.)

#### **AGRONOMY**

CYRIL GEORGE HOPKINS, Ph.D., Professor, Agronomy
JEREMIAH GEORGE MOSIER, B.S., Professor, Soil Physics
LOUIE HENRIE SMITH, Ph. D., Professor, Plant Breeding
JAMES HARVEY PETTIT, Ph. D., Professor, Soil Fertility
LEONARD HEGNAUER, B.S., Professor, Crop Production

Axel Ferdinand Gustafson, M.S., Associate, Soil Physics
Ora Stanley Fisher, B.S., Associate, Soil Fertility
Harold Wilson Stewart, B.S., Associate, Soil Physics
William Leonidos Burlison, M.S., Associate, Crop Production
Ira Wilmer Dickerson, B.S., Instructor, Farm Mechanics
Karl John Theodore Ekblaw, B.S., Instructor, Farm Mechanics
Frederick Charles Bauer, B.S., Instructor, Soil Fertility
Chester Otis Reed, B.S., Instructor, Farm Mechanics
Albert Lemuel Whiting, Ph.D., Instructor, Soil Biology
Marvin Edward Jahr, A.B., Instructor, Farm Mechanics
Orr Allyn, B.S., Assistant, Crop Production

#### COURSES FOR UNDERGRADUATES

Crops: Agronomy 7, 8, 22, 25

Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 19, 20, 26, 27

Soils: Agronomy 9, 10, 11, 12, 13, 23

- I. Drainage.—Drainage and its surveying operations. Chaining, mapping, leveling, designing, setting grade stakes, laying tile.
   Lectures and laboratory first half semester; field work second half semester. II; (3).
- 2. FIELD MACHINERY.—Physics: work, horse-power, resolution of forces, simple machines. Whiffletrees and hitches. Ropes: care, use, knots, splices. Chains. Construction, operation, adjustment, purchase, and care of implements for soil and seed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Lectures; laboratory work. (Alternating with Mechanical Engineering 48 or 49 if desired.) I; (3).
- 3. FARM POWER MACHINERY.—Power transmission: ropes, belts, pulleys, gearwheels, shafting, friction, lubrication; sources of farm power: the horse as a motor, windmills, waterpower, steam engines, hot air engines, electric motors—their theory, operation, and economy. Internal combustion engines and tractors—methods of ignition, theory, operation, and economy. Methods of applying power to field operations. Detailed design for a practical farm power plant. Lectures; laboratory. (Alternating with Mechanical Engineering 48 or 49 if desired.) II; (3).

  Mr. Dickerson
- 4. FARM BUILDINGS.—Arrangement, design, construction and cost; machinery sheds; granaries; corn cribs; chicken houses;

swine houses; barns; dwelling houses. Drafting of buildings; lectures; assigned readings. I; (5). Mr. Ekblaw

7. FARM CROPS.—Origin, history, development, and value; botanical relations; structure and requirement of seed for best development; preparation of the seed bed; seeding; cultivation, tillage, and inter-tillage; harvesting; time of maturity for various uses; rotations, or succession of crops; systematic farming, distribution of labor, cost of production, consumption of products, residues, byproducts; marketing; market conditions; losses in and cost of storage; the general utility of each crop, its place in a system of farming, or a rotation; special attention to Illinois conditions. Class, reference, laboratory, and field work. II; (5).

Professor HEGNAUER

Prerequisite: Agronomy 25.

8. FIELD EXPERIMENTS.—Testing varieties of corn, oats, wheat, potatoes, and other farm crops; methods of planting corn, seeding grains, grasses, and other forage crops; culture of corn, potatoes, and sugar beets; practice in treating oats and wheat for smut, and potatoes for scab, and studying the effect upon the crops; combating cinch bugs and other injurious insects. Other practical experiments may be arranged with the instructor. II, and summer vacation; (2-5).

Professor Hegnauer

Prerequisite: Agronomy 25 and 7.

9. Soil Physics and Management.—Origin of soil material; methods of formation; mechanical composition and classification; moisture; texture as affecting capillarity, osmosis, diffusion, temperature, aeration, and as affected by plowing, harrowing, cultivating, rolling, and cropping; wasting by washing; fall or spring plowing and drainage as affecting moisture, temperature, and root development; real and apparent specific gravity, porosity, water holding capacity, and capillary power; the physical effects of different systems of rotation and of continuous cropping with various crops. Lectures; laboratory. *I*; (5).

Professor Mosier, Mr. Gustafson, Mr. Stewart, Mr. Fisher Prerequisite: Chemistry 1 and one unit in entrance physics; at least one year of university work. Regular students are urged to take this course after or in conjunction with Chemistry 13a; others consult instructor.

10. Special Work in Soil Physics.—Physical properties of special soils; centrifugal analysis of such soils; field observation of the

effects of discing, harrowing, and rolling; time and depths of cultivation; soil moisture and temperature; effects of washing of soils; methods of prevention. I or II; (2-5).

Professor Mosier, Mr. Gustafson

Prerequisite: Agronomy 9.

11. Soil Biology.—Activities of infusoria, fungi, algae, and bacteria in soils from the standpoint of soil fertility; fermentation of crop residues and green and farm manures and its effect upon insoluble plant food; fixation of atmospheric nitrogen, its transformations, use, and possible losses. Lectures; laboratory. II; (3).

Professor Pettit, Dr. Whiting

Prerequisite: Agronomy 12; Botany 5.

12. Soil Fertility, Fertilizers, Rotations.—The influence of fertility upon the yield of various crops; effect of different crops upon the soil and upon succeeding crops; different rotations; ultimate effect of different systems of farming upon fertility and productivity; manures and fertilizers, their composition and value; soils cropped continuously with different crops and with a series of crops; the fertility of soils of different types or classes from different sections of Illinois. Lectures; laboratory. II; (5).

Professor Hopkins, Mr. Fisher, Mr. Bauer

Prerequisite: Chemistry 13a; Agronomy 9.

13. Investigation of the Fertility of Special Soils.—Soils in which the student is particularly interested. Determination of the nature and quantity of the elements of fertility; effect upon various crops of different fertilizers added to the soils, as determined by pot cultures, and by plot experiments; systematic study of similar work of experiment stations and experimenters. *I*, *II*; (2-5).

Professor Hopkins, Professor Pettit

Prerequisite: Agronomy 12.

16. German Agricultural Readings.—Special attention to soils and crops. The current numbers of German journals of agricultural science used as texts. II; (2). Professor Hopkins

Prerequisite: Two years' work in German; Agronomy 12.

17. HARVESTING MACHINERY.—Expert work on grain binders, corn binders, mowers, hay rakes, loaders, and stackers. (For students preparing to do expert work on these machines in the field.) II; (3).

Mr. REED

Prerequisite: One year of university work; Agronomy 2, 3; M. E. 48; the consent of the instructor.

18. Investigation and Thesis.—I, II; (5-10).

Professors Hopkins, Mosier, Smith, Pettit, Hegnauer

19. Research Work in Farm Mechanics.—(Consult instructor regarding time and requirements.)

Mr. DICKERSON, Mr. EKBLAW, Mr. JAHR, Mr. REED

- 20. Concrete Construction for Agricultural Purposes.—Materials; mixing and using; simple comparative tests; general specifications and estimates for walks, posts, tanks, floors, and foundations. II; (2). Mr. Ekblaw
- 22. PLANT Breeding.—The improvement by breeding of field crops, including the grains, grasses, and legumes; selection; results obtained by various investigators. Lectures; assigned readings; demonstrations; laboratory. II; (2). Professor SMITH

Prerequisite: Botany 1; Chemistry 13a; Agronomy 25.

- 23. PLANT FOOD SUPPLIES.—The world's supply of plant food materials; utilization and conservation. II; (1). Professor Pettit Prerequisite: Agronomy 12.
- 25. FARM CROPS.—Plant growth; structure; habits and requirements; preparation of the seed bed; seed selection for productiveness; storing; care of stored grain to prevent deterioration in vitality, or loss in market requirements; grading and fanning of grain as a means of improvement; market grades of grain and grain judging; examination of grains for purity; testing for vitality; weeds; identification, methods of distribution, eradication, control; diseases of farm crops and methods of prevention. *I or II*; (4).

Professor Hegnauer, Mr. Burlison

- [26. FARM BUILDINGS AND EQUIPMENT.—Location; design; construction; cost; maintenance; efficiency; economy. Lighting; heating; ventilation; water supply; plumbing; sewage disposal; home power-plant; minor household and farm conveniences. Lectures, recitations, problems, with some elementary drafting. II; (3). Not given in 1912-13.

  Mr. Ekblaw]
- 27. Drainage Design.—Designing tile drainage systems from level note data and contour maps; estimating sizes, amounts, and cost of tile, and cost of systems complete; designing outlet open ditch systems for drainage districts, estimating sizes and costs; drainage district laws; preparing bids on contract jobs; advanced field work. *I*; (1-5).

  Mr. Jahr

Prerequisite: Agronomy 1, or C. E. 21 or 22.

#### COURSES FOR GRADUATES

Students who wish to do their major work in agronomy must have had the major courses offered in that subject to undergraduates in the College of Agriculture of the University of Illinois, or the equivalent. While every one seeking a doctor's degree with agronomy as a major will be required to have a good knowledge of the whole field of agronomy, each student is expected to be especially prepared in some one of the following divisions of the field: soil fertility, plant breeding, soil physics, crop production, and soil biology.

Students who are taking their major work in other departments and choose agronomy as a minor must have had previously the work in chemistry, botany, and other fundamental sciences prescribed in the undergraduate courses for students of agronomy in the College of Agriculture, or the equivalent.

IOI. Soil Investigation.—Systems of soil investigation; sources of error and methods of control; interpretation of results. Once a week; II.

Professor Hopkins

103. Soil History.—Different systems of agricultural practice and their ultimate effect upon the soil. Once a week; II.

Professor Hopkins

II2. PLANT BREEDING.—A detailed study of experiments at this station; methods and results reported from other states and from foreign countries. Once a week; I, II. Professor SMITH

Prerequisite: Botany 1; Chemistry 13a.

118. Investigation.—Professors Hopkins, Mosier, Smith, Pettit

#### ANIMAL HUSBANDRY

(Including FARM MANAGEMENT)

HERBERT WINDSOR MUMFORD, B.S., Professor, Animal Husbandry
HARRY SANDS GRINDLEY, D.Sc., Professor, Animal Chemistry
LOUIS DIVON HALL M.S., Assistant Professor, Animal Husbandry

LOUIS DIXON HALL, M.S., Assistant Professor, Animal Husbandry Walter Castella Coffey, M.S., Assistant Professor, Sheep Husbandry

EDWIN STANTON GOOD, M.S., Assistant Professor, Swine Husbandry JOHN A DETLEFSEN, D.Sc., Assistant Professor, Genetics HENRY PERLY RUSK, M.S.A., Associate, Beef Cattle JAMES LLOYD EDMONDS, B.S., Associate, Horse Husbandry

DANIEL OTIS BARTO, B.S., Associate, Poultry Husbandry

WALTER EDWARD JOSEPH, Ph.D., Instructor, Animal Husbandry

WILLIAM HERSCHEL SMITH, M.S., Instructor, Animal Husbandry

WALTER FREDERICK HANDSCHIN, Assistant, Animal Husbandry

SLEETER BULL, M.S., Instructor, Animal Nutrition

JOHN JONATHAN YOKE, Assistant, Animal Husbandry

VIRGIL AUGUSTUS PLACE, B.S., Assistant, Animal Husbandry

HAROLD CLAYTON M. CASE, B.S., Assistant, Animal Husbandry

WILBUR JEROME CARMICHAEL, Assistant, Animal Husbandry

JOHN RICHARD WELLS, B.S., Assistant, Animal Husbandry

#### COURSES FOR UNDERGRADUATES

Beef Cattle: Animal Husbandry 11a, 11b

Breeding, Feeding, and Management: Animal Husbandry 6, 7, 14,

28, 29, 30

General Judging: Animal Husbandry 5, 22 Horses: Animal Husbandry 4a, 4b, 17 Meat: Animal Husbandry 10, 24 Poultry: Animal Husbandry 23

Sheep: Animal Husbandry 1a, 1b, 25, 27 Swine: Animal Husbandry 2a, 2b, 26

Note.—Students registered in advanced courses such as 14, 22, 28, etc., will be required to participate in a tour of inspection of representative herds, flocks, and studs.

1a. Sheep: Breeds and Market Classes.—Breeds extensively used for mutton and wool production; type, characteristics, and adaptability; market classes and grades of sheep and wool. Lectures; judging. I; (2). Assistant Professor Coffey, Mr. Place Prerequisite: Animal Husbandry 5 or its equivalent.

Ib. Sheep: Breeding, Feeding, and Management.—Pure bred and grade flocks: feeding, housing, and shepherding. Lectures; reference readings. I; (3). Assistant Professor Coffey, Mr. Place Prerequisite: Animal Husbandry 5 and 6 or their equivalents. It is advisable to take 1a and 1b simultaneously.

2a. SWINE: BREEDS AND MARKET CLASSES.—History of the leading breeds: type, characteristics, and adaptability; market

classes and grades; market reports. Lectures; judging. II; (2).

Assistant Professor Good, Mr. Carmichael

Prerequisite: Animal Husbandry 5 or its equivalent.

2b. Swine Husbandry.—Swine raising from the standpoint of market requirements and of economic production; breeding, housing, care, and feeding of swine for breeding purposes. II; (3).

Assistant Professor Good, Mr. CARMICHAEL.

Prerequisite: Animal Husbandry 5 and 6, or their equivalents. It is advisable to take 2a and 2b simultaneously.

4a. Breeds of Horses and Market Classes of Horses and Mules.—History of the leading breeds; type, characteristics, and adaptability; market classes, grades, and requirements. Lectures; judging. II; (2).

Mr. Edmonds, Mr. Yoke

Prerequisite: Animal Husbandry 5, or its equivalent.

4b. Breeding, Feeding, and Management of Horses.—Methods: care of stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. II; (3).

Mr. Edmonds, Mr. Yoke

Prerequisite: Animal Husbandry 5 and 6, or their equivalents. It is advisable to take 4a and 4b simultaneously.

- 5. Fundamentals of Live Stock Judging.—The names and location of external parts of the various kinds of live stock, the use of the score card, comparative judging as a method, breed identification, and types of farm animals. Required in freshman year. I; (3). Assistant Professor Coffey and members of the department
- 6. Principles of Feeding and Breeding.—Feeding; classification, digestibility, and functions of food nutrients; market grades and food values of feeding stuffs; feeding standards and calculation of balanced rations for farm animals.

Breeding: evolution of domesticated animals; history of systematic breeding and improvement; unit characters; range of variability; effects of selection; systems of breeding.

Required in sophomore year. I; (3).

Feeding: Assistant Professor Hall, Dr. Joseph, Mr. Bull Breeding: Mr. Handschin, Mr. Smith, Mr. Case

7. PRINCIPLES OF ANIMAL NUTRITION.—Composition and fuel value of feeding stuffs; organic and inorganic food stuffs; digestion, absorption, and metabolism; elimination of metabolic products;

coefficients of digestibility and nutritive value of feeding stuffs. I; (3). Professor Grindley, Dr. Joseph, Mr. Bull. Prerequisite: Animal Husbandry 5 (or course formerly known as Animal Husbandry 21); Chemistry 13a.

- 9. Investigation and Thesis.—I or II; (5-10).
- 10. MEAT.—Farm butchering, curing, and care of meats; yield, quality and values of meat and by-products, as related to breeding, feeding, and health of animals; classes, grades, and cuts of meat in wholesale and retail markets. II; (3). Assistand Professor HALL

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

IIa. BEEF CATTLE.—Breeds and market classes; history of the leading breeds; beef type from the standpoint of the butcher, the feeder, and the breeder; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. I; (2). Mr. Rusk, Mr. Smith

Prerequisite: Animal Husbandry 5 or its equivalent.

IIb. BEEF PRODUCTION.—Breeding and management of pure bred herds; breeding for market; combined beef and milk production; economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; equipment; pork and manure as by-products of beef production. Lectures; quizzes; assigned readings (text book). I; (3).

Mr. Rusk, Mr. Smith

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take IIa and IIb simultaneously.

14. Management of Pure-bred Herds, Flocks, and Studs.—Housing and management; selecting and fitting animals for sale and for the show ring; advertising and sale of surplus stock. Laboratory work with animals in University barns; lectures; assigned readings. II; (3).

Professor Mumford and other members of the department *Prerequisite:* Animal Husbandry 5 and 6, and six hours' credit from 1b, 2b, 4b, 11b. See note, page 264.

15.—Dairy Cattle.—(See Dairy Husbandry 2 and 3.)

[17. EDUCATION AND DRIVING OF THE HORSE.—Mental qualities, peculiarities, and limitations of the horse; education and training for labor or the road; correct driving; responsibilities of the driver; courtesies of the highway. Lectures; readings; practice. II, (2). Not given in 1912-13.

Mr. EDMONDS

Prerequisite: Animal Husbandry 4a and 4b; three semesters' work in the University or its equivalent.

22. ADVANCED STOCK JUDGING.—Animal conformation, quality, and condition with reference to market and show yard requirements; the selection of horses, beef cattle, sheep, and swine, for feed lot, market, and exhibition; judging at live stock shows. I; (3)

Professor Mumford and instructors in charge of prerequisite courses Prerequisite: Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents. See note, page 264.

23. POULTRY: TYPES, BREEDS, AND VARIETIES.—Exhibiting and judging; principles of breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; cratefattening and dressing; diseases and their treatment. II; (5).

Mr. BARTC

Prerequisite: Animal Husbandry 5, or its equivalent.

24. MEAT.—Influence of type, condition, age, sex, and feeds upon the yield and market grade of meat products. II; (2-5).

Assistant Professor HALL

Prerequisite: Animal Husbandry 10, and 1a or 2a or 11a, three years' work in the University, or its equivalent.

25. Wool.—Quality, quantity, strength, and condition of wool.

II; (2-5).

Assistant Professor Coffey

Prerequisite: Animal Husbandry 1a, 1b; three years' work in

the University, or its equivalent.

[26. SWINE HUSBANDRY.—Special problems in swine production. II; (2-5). Not given in 1912-13. Assistant Professor Good Prerequisite: Animal Husbandry 2a, 2b; three years' work in

the University, or its equivalent.]

27. Sheep Husbandry.—Factors determining the importance of the industry in leading sheep growing countries, particularly different parts of the United States. II; (2-5).

Assistant Professor Coffey

Prerequisite: Animal Husbandry 1a, 1b; three years work in the University, or its equivalent.

28. Advanced History of Breeds of Live Stock.—Horses, beef cattle, sheep, and swine. Methods of great breeders; performances and pedigrees of famous animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems, Breeds offered in 1912-13: Beef cattle, Shorthorns, Aberdeen Angus; horses, Percherons, Standard breds; swine, Berkshires, Duroc Jerseys; sheep, Shropshires, Rambouillets. Breeds offered in 1913-14: Beef Cattle, Herefords, Galloways; horses, Shires, American Sad-

dlers; swine, Poland Chinas, Chester Whites; sheep, Hampshires, Oxford Downs. I: (3-5).

Professor Mumford and other members of the department Prerequisite: "a" and "b" courses in class of live stock elected. See note, page 264.

20. Systems of Live Stock Farming.—The principles of management; influence of climate, topography, soil, character of the people, location, and other factors, II: (2). Mr. HANDSCHIN

Prerequisite: Animal Husbandry 5 and 6; six hours credit from 1b. 2b. 4b. or 11b: Farm Management 1.

30. GENETICS.—Heredity; variation; Mendel's and Galton's Laws; dominance and segregation; gametic coupling and spurious allelomorphism; correlation; mutation theory; inheritance of acquired characters; prenatal influence; pure lines, selection, variability; modification of unit-factors. Practical application to breeding. Lectures; laboratory. II; (5). Assistant Professor Detlefsen

Prerequisite: Two years of university work, including ten hours

in biology.

#### COURSES FOR GRADUATES

Students entering graduate work in Animal Husbandry should have had a thorough training in the fundamental principles of the subject either in connection with or in addition to an agricultural course of study substantially equivalent to that offered in this University.

See courses 7, 22, 24, 25, 26, 27, in undergraduate list, which are also open to graduate students.

103. LIVE STOCK EXPERIMENTATION.—Objects, methods, and the sources of error in experimental work dealing with the feeding, breeding, and management of farm animals; experiments at this and other experiment stations. Once a week; I, II.

Professor MUMFORD

[110. ANIMAL NUTRITION.—Recent scientific publications on the chemistry and physiology of the nutrition of the lower animals; the chemical and physiological changes and processes involved in the activities of animal life. Lectures; conferences; assigned readings. Three times a week; I, II. Not given 1912-13.

Professor GRINDLEY

111. Animal Nutrition.—Examination and analysis of feeding stuffs and animal substances including flesh, fat, bone, urine, feces, and manufactured animal products. Lectures; conferences; assigned readings; laboratory. Two to five times a week; I, II.

Professor GRINDLEY

#### 112. INVESTIGATION.—

- (a) Economic factors involved in the various phases of meat production.
- (b) Systems of live stock farming.
- (c) The valuation of pedigrees.
- (d) Animal Nutrition: Digestion and metabolism experiments and biochemical studies connected with the nutrition of farm animals.
- (a), (b), and (c), once a week; I, II. Under the direction of Professor Mumford
  - (d), daily; I, II. Under the direction of Professor Grindley 116. Seminar.—Reports; discussion of special topics. I, II.

    Professor Mumford, Professor Grindley, and others

#### FARM MANAGEMENT

I. ELEMENTARY FARM MANAGEMENT.—The factors of production in the farm business; systems of farming, their distribution, and adaptation; farm organization; the distribution of capital invested; planning of the farm; farm administration or operation; planning of work; handling of labor; developing management efficiency. Lectures; quiz. II; (2). Mr. HANDSCHIN Prerequisite: Three semesters of required work; Economics 2.

#### ARCHITECTURE

Frederick Maynard Mann, M.S., C.E., Professor Nathan Clifford Ricker, D.Arch., Professor

NEWTON ALONZO WELLS, M.P., Professor, Architectural Decoration

JAMES McLaren White, B.S., Professor, Architectural Engineering

CHARLES RICHARD CLARK, B.S., Associate, Architectural Construction

ROY CHILDS JONES, B.S., Instructor ROBERT TAYLOR JONES, B.S., Instructor SIDNEY FISKE KIMBALL, M.Arch., Instructor

ALLEN HOLMES KIMBALL, M.S., Instructor, Architectural Design
JOSEPH MITCHELL KELLOGG, M.Arch., Instructor, Architectural
Design

FREDERICK KITSON COWLEY, Instructor

SAMUEL C. BURTON, Instructor

WINIFRED FEHRENKAMP, B.L.S., Librarian

4. BUILDING SANITATION.—Plumbing, trap ventilation, removal of wastes; construction of water closets; drains, and systems of water supply; sewage disposal; water supply and fixtures in dwellings. Cosgrove's *Principles and Practice of Plumbing*. Recitations; lectures; designs for special problems. *I*; (2). Mr. CLARK

Prerequisite: Registration in Physics 2a, 2b; Architecture 2, 3.

- 5. Graphic Statics.—Same as 45 and 46. One lecture and nine hours drawing per week. II; (4).

  Mr. Clark
- 6. HISTORY OF ARCHITECTURE.—From the Egyptian period to modern times; effects of political, economic, and local conditions; influence of materials, climate, structural systems; architecture of the various countries and periods; evolution of architectural forms. Illustrated lectures; quizzes. *I, II;* (4). Professor RICKER

Prerequisite: Sophomore standing in architecture or architectural engineering.

8. Architectural Drawing.—Perspective; shades and shadows; conventional rendering; relations of plans, elevations, and sections to each other; elementary architectural composition. *Nine hours drawing per week*. II; (3).

Mr. A. H. Kimball

Prerequisite: General Engineering Drawing 1, Architecture 20.

10. ESTIMATING.—Methods and practice of estimating building costs. II: (1).

Mr. CLARK

12, 13, 14, 15. HISTORY OF ARCHITECTURE.—Covers approximately the same ground as Architecture 6. Sophomore I, II; Junior I, II; (2).

Professor RICKER

Prerequisite: Architecture 31, 32.

14a. Architectural Perspective.—Theory of perspective; laborsaving methods; freehand perspective; problems in angular, parallel, vertical, and curvilinear perspective, and in perspective shades and shadows. One lecture and three hours drawing per week. 1; (2).

Mr. A. H. KIMBALL

15a. Design.—(Architectural design for architectural engineers.)

Order and plan problems. Nine hours drawing per week. II; (3).

Mr. A. H. Kinball.

Prerequisite: General Engineering Drawing 1, 2; Architecture 20, 8.

19. Architectural Engineering.—Graphic statics applied to the analysis of metalic roofs of wide span; roof trusses of curved or unusual form and those supported by abutments and jointed, spherical, and conical trussed domes; the stone arch, vault, and dome, and of the Gothic system of vaults and buttresses; the strength of walls, dams, retaining walls, and large chimneys; the effect of moving loads on girders; construction and details of steel skeleton buildings. Problems in design for specified cases. Tucker's Steel Construction; Ricker's Notes on Architectural Engineering. Nine hours drawing per week. I, II; (3).

Mr. CLARK

Prerequisite: Theoretical and Applied Mechanics 6, 7, 8, 9; Architecture 43, 44, 5.

- 20. ARCHITECTURAL AND FREEHAND DRAWING.—Freehand drawing from the cast; principles of architecture; architectural elements: walls, moldings, doors, windows, the Orders, etc. Lectures and sketching. Two lectures and seven hours drawing per week. I; (3).

  Mr. A. H. Kimball
- 23, 24. Freehand Drawing.—Charcoal drawing from the cast. Six hours drawing per week. I, II; (2).

Professor Wells, Mr. Cowley

25, 26. Freehand Ddawing.—Charcoal, pen, pencil, and water color drawing from the cast and from still life. Out-of-door sketching. Six hours drawing per week. I, II; (2).

Professor Wells, Mr. Cowley

- 27, 28. Freehand Drawing.—Water color drawing; original decorative composition; out-of-door sketching. Six hours drawing per week. I, II; (2). Professor Wells
- 31. Architectural and Freehand Drawing.—Practice with instruments, pen, pencil, and brush; lettering; shades and shadows; perspective. Charcoal drawing from the cast. One lecture and eleven hours drawing per week. I; (4).

Mr. S. F. Kimball, Mr. Burton, Mr. Cowley

Prerequisite: Registration in G. E. D. 2.

32. ARCHITECTURAL AND FREEHAND DRAWING.—Elements of

architecture; walls, moldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. Lectures and sketching. One lecture and eleven hours of drawing per week. II; (4).

Mr. S. F. Kimball, Mr. Burton, Mr. Cowley

Prerequisite: Architecture 31.

33, 34 Design.—(Elementary). Rendered order problems and sketch problems involving simple composition; library research in elements of composition. *Nine hours drafting room per week.* I, II; (3).

Mr. Kellogg, Mr. A. H. Kimball

Prerequisite: Architecture 31, 32.

- 34a. Architectural Engineering Seminar.—Current literature; reports and discussions. I; (1). Professor White
- 35, 36. Design.—(Intermediate). Rendered plan problems and sketch problems; library research in plan and interior elements. Fifteen hours drafting room per week. I, II; (5). Mr. R. C. Jones Prerequisite: Architecture 33, 34.
- 37. Design.—(Advanced). Extended problems in original design. Twenty-one hours drafting room per week. I; (7).

Professor Mann

Prerequisite: Architecture 35, 36.

38. Thesis.—The working out of an extended original problem in design or construction. First semester: preliminary work; second semester: prescribed hours meet but part of the thesis requirement. Twenty-one hours drafting room per week. I, II; (7).

Professor Mann, Professor White

43. Specifications and Working Drawings.—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; detailing at large scale various parts: floors, walls, roofs, doors, windows, cornices, stairs, wainscoating, cabinetwork, internal finish; detail sketches of similar work in process of actual construction. Kidder's Building Construction, Part II. Two lectures and four hours drawing per week. I; (3). Mr. R. T. Jones

Prerequisite: General Engineering Drawing 2; Architecture 31, 32.

44. Specifications and Working Drawings.—Foundations of stone, brick, concrete, and piles; materials employed in stone masonry; their uses, defects, qualities, and modes of preparation; kinds of masonry and external finish; tools for stone cutting and their

use; brick masonry, its materials and bonds; terra-cotta design, manufacture, and use; manufacture and refining of cast iron, wrought iron, and steel; pattern making, molding, casting, refining, rolling, etc., and standard dimensions or sections; detailing of columns, beams, girders, and footings; joints and connections. Kidder's Building Construction and Superintendence. Part I. Two lectures and four hours drawing per week. II; (3).

Mr. R. T. Jones

Prerequisite: General Engineering Drawing 2; Architecture 31, 32.

45. Graphic Statics.—Elements of graphic statics and their application in the analysis of trussed roofs, steel and masonry arches, domes. The graphical representation of reactions, bending moments, and shear, in beams. Ricker's Notes on Graphic Statics. One lecture and six hours drawing per week. 1; (3). Mr. CLARK Prerequisite: Theoretical and Applied Mechanics 14, 15, 16.

46. Structures.—Design of wooden and steel roofs; determination of section of members; design of joints; mill and steel skeleton construction. One lecture and three hours drawing per week. II; (3).

Mr. CLARK

Prerequisite: Architecture 45.

55. Building Sanitation.—(Similar to Architecture 4). I; (1).
Mr. Clark

Prerequisite: Physics 2a, 2b; Architecture 2, 3.

57. HEATING AND VENTILATION.—Theory and practice of warming and ventilating buildings; fuels and production of heat; flow of gases through ajutages and pipes; calculation of dimensions of air ducts and chimneys; systems of heating: furnaces, hot water, steam; sources of impurity in the air and requirements of good ventilation; methods of ventilation by aspiration, by fans; fans of different types. Problems; design of heating plants. Hoffman's Heating and Ventilation. I, II; (2 or 3). Professor White

Prerequisite: Architecture 43, 44, 55; Physics 2a, 2b; or 1, 3.

59. Domestic Architecture.—(Given in connection with Household Science 2.) Lectures; criticism.

Professors Mann and White, Mr. Clark, Mr. R. T. Jones

60. Special Lectures.—Lectures by members of the staff and by invited architects. One lecture per week. I, II; (1).

In charge of Professor MANN

65, 66. THEORY OF ARCHITECTURE.—Influence of function on architectural form; theory of architectural composition in plan and elevation; problem analysis. Lectures; research; exercises. *I, II*; (1). Mr. R. C. Jones

Prerequisite: Architecture 33, 34.

67. (41). Theory of Form and Color.—Principles underlying pleasing arrangements of form and color; rhythm and sequence; harmony and contrast; proportion and balance. Lectures; exercises. I; (2).

Professor Wells

Prerequisite: Architecture 25, 26, 35, 36.

68. (12). Business Relations.—The relations of the architect, owner, and builder; forms of contracts and contract clauses; estimating; office organization; building ordinances; professional ethics. II; (3).

Professor Mann

Prerequisite: First three years of the courses in Architecture or Achitectural Engineering.

#### COURSES FOR GRADUATES

Entrance upon graduate work in architecture presupposes the full undergraduate course in that subject. Semi-weekly conferences are held and additional instruction given, in all courses, as may be required.

- 101. Architectural Construction.—Design of special structures. Arrange hours; I, II. Professors Ricker and White
- 102. Sanitation of Buildings.—The planning of sanitation, warming, and ventilation, for buildings of importance. *Arrange hours; I, II.* Professors Ricker and White, Mr. Clark
- 103. Advanced Architectural Graphics.—Advanced work in graphic statics, stereotomy, perspective, water color, and free-hand drawing. *Arrange hours*; *I or II*. Professors Ricker, Wells
- 104. Architectural Design.—Advanced architectural design.

  Arrange hours; I or II. Professor Mann
- 105. Architectural Practice.—Contracts, specifications, and office methods; architectural jurisprudence. Arrange hours; I or II.

  Professors Mann, Ricker, White
- 106. ADVANCED ARCHITECTURAL HISTORY.—Special research in architectural history. Arrange hours; I or II.

Professors Mann and RICKER

#### ART AND DESIGN

EDWARD JOHN LAKE, B.S., Assistant Professor MARY MINERVA WETMORE, Instructor CHARLES FABENS KELLEY, A.B., Instructor ISABEL JONES, Instructor

1. Free-Hand Drawing.—The principles of perspective; practice in drawing. I, II; (2).

Assistant Professor Lake, Miss Jones, Mr. Kelley

2. Light and Shade.—Shaded drawing in monochrome. II; (2).

Assistant Professor Lake, Miss Jones

Prerequisite: Art and Design 1.

3. Antique Drawing.—Practice in drawing; study of artistic anatomy. I, II; (2). Miss Wetmore

Prerequisite: Art and Design 1.

4. Water Color Painting.—Still-life; flowers; landscapes. I, II; (3). Miss Jones

Prerequisite: Art and Design 1, 2.

5. Drawing from Life.—Posed model in costume. I, II; (2).
Miss Wetmore

Prerequisite: Art and Design 1, 2, 3.

6. Portrait in Oil Color.—Figure and portrait in costume.

I, II; (2).

Miss Wetmore

Prerequisite: Art and Design 1, 2.

7. OIL PAINTING.—Still-life; flowers; landscape. I, II; (3).

Miss Wetmore

Prerequisite: Art and Design 1, 2.

8. Modeling.—Antique and figure; plaster casting. I, II; (2).

Assistant Professor Lake

Prerequisite: Art and Design 1.

10. Sketching in Monochrome.—General practice in pen and pencil. II; (1). Assistant Professor Lake

Prerequisite: Art and Design 1.

- 12. DESIGN.—Theory and practice. I, II; (2). Mr. KELLEY Prerequisite: Art and Design 1.
- 13. Design.—History and practice. I, II; (3). Mr. Kelley Prerequisite: Art and Design 1, 12.

14. DESIGN.—Advanced practice. I, II; (3). Mr. KELLEY Prerequisite: Art and Design I, 12, 13.

19. HISTORY OF THE FINE ARTS.-I, II; (2).

Assistant Professor LAKE

Prerequisite: One year of college work.

#### **ASTRONOMY**

\*JOEL STEEBINS, Ph.D., Assistant Professor Frank Walker Reed, Ph.D., Instructor

Instruction in astronomy is arranged both for general students and for those who desire to take up the science from its technical side. Advanced students are given every opportunity to become familiar with the use of modern astronomical instruments. The equipment of the department is contained in the Astronomical Observatory. The principal instruments are a 12-inch refracting telescope by Warner and Swazey, and Brashear, and a 3-inch transit and zenith telescope. There are also two smaller equatorials, two Riefler clocks, and a considerable amount of minor apparatus such as chronometers, transits, sextants, spectroscopes, photometer, photographic outfit, and calculating machines. The astronomical library comprises about 1,200 volumes, and includes all of the important astronomical periodicals.

Students without mathematical training may elect course I. Course 4 is for beginners, but requires a knowledge of trigonometry. Other courses should be taken in the following order: 3, 6, 15, 14, 7.

#### COURSES FOR UNDERGRADUATES

- I. ELEMENTARY ASTRONOMY.—Lectures; recitations; one evening a week at the observatory. (For beginners; mathematics not required.) I; (3). Assistant Professor Sterbins, Dr. Reed
- 3. GENERAL ASTRONOMY FOR ENGINEERS.—Descriptive astronomy; required with course 6. II; (3).

Assistant Professor Stebbins, Dr. Reed

Prerequisite: Mathematics 7 or 8a.

4. General Astronomy.—Lectures; recitations; two evenings a week at the observatory. II; (5).

Dr. Reed

Prerequisite: Mathematics 4.

6. Practical Astronomy.—Rough and accurate determinations

<sup>\*</sup>On leave.

of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. II; (2).

Assistant Professor Stebbins, Dr. REED

Prerequisite: Mathematics 7 or 8a.

#### FOR ADVANCED UNDERGRADUATES AND GRADUATES

7. Theoretical Astronomy.—Celestial mechanics; theory of orbits; perturbations; canonical transformations. I, II; (3).

Dr. REED

Prerequisite: Mathematics 8a or 7 and 9.

9. Celestial Mechanics.—Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. *I, II;* (3). Dr. Reed

Prerequisite: Mathematics 16; Astronomy 7.

14. Observational Astronomy.—The working methods of an astronomical observatory; individual problems. II; (3).

Assistant Professor Stebbins, Dr. REED

Prerequisite: Astronomy 15.

15. Geodetic Astronomy.—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey.

I; (3). Assistant Professor Stebbins, Dr. Reed

Prerequisite: Mathematics 7 or 8a.

#### COURSE FOR GRADUATES

101. SEMINAR AND THESIS.—Three times a week; I, II.

Assistant Professor Stebbins, Dr. Reed

#### BACTERIOLOGY

(See Botany 5, 6, 8, 103, 104.)

BANKING (See Economics.)

#### BIOLOGY

(See Botany, Entomology, Physiology, and Zoology.)

#### BOTANY

THOMAS JONATHAN BURRILL, Ph.D., LL.D., Professor, Emeritus Charles Frederick Hottes, Ph.D., Assistant Professor Otto Rahn, Ph.D., Assistant Professor James Theophilus Barrett, Ph.D., Associate Warder Clyde Allee, Ph.D., Instructor Stella Mary Hague, Ph.D., Assistant

JOHN HAMILTON WHITTEN, A.B., Assistant
ROSALIE MARY PARR, A.M., Assistant
REED O'SHEA BRIGHAM, B.S., Assistant
RUTH SARAH ATWELL, B.S., Assistant
CLYDE ROSS NEWELL, M.S., Assistant
BRONSON BARLOW, B.S., Assistant
CLINTON ALBERT LUDWIG, B.S.A., Graduate Assistant
SAMUEL HAWTHORNE SCHERFEE, A.B., Graduate Assistant
ERNEST MICHAEL RUDOLPH LAMKEY, Graduate Assistant

Courses numbered I to 16 inclusive are primarily for undergraduates; those numbered 101 to 104 inclusive are for graduates only. The undergraduate work may be roughly classified in four somewhat distinctive lines, viz: I, anatomy and physiology (courses I, 3, 7, 9, 14); 2, morphology and taxonomy (courses 2, 4, 16); bacteriology (courses 5, 6, 8). Course 11 is an introductory one and 15 is for prospective teachers. Courses 1, 2, and 4 form together a general introduction to the science and may be elected by those who propose to go no farther or with equal propriety by those who are to pursue subsequently the more specialized work.

I. HISTOLOGY AND PHYSIOLOGY.—The tissues and organs of plants; the phenomena of nutrition, growth, and irritability; II; (5). Assistant Professor Hottes, Dr. Allee, Mr. Whitten, Miss Parr, Mr. Brigham, Miss Atwell, Mr. Ludwig, Mr. Scherfee, Mr. Lamkey

Prerequisite: Entrance credit in botany, or Botany II; Chemistry I or Physics 2a.

2. Morphology.—The principal plant groups, beginning with the lower (thallophytes), by selected types. First semester: general survey of the plant world; second semester: seed plants (spermatophytes). Each semester's work is credited separately as 2a and 2b. I, II; (5).

Dr. Hague

Prerequisite: Entrance credit in botany, or Botany II (for 2b, Botany II or 2a).

3. Cytology and Physiology.—First semester; cytology and histology, with special attention to technique. Second semester: influences of external stimuli on growth and movement. Lectures; laboratory; assigned reading. (Extends through the year, but the

work of each semester is credited separately as 3a and 3b.) I, II; (5).

Assistant Professor Hottes

Prerequisite: Botany 1.

4. TAXONOMY OF SPERMATOPHYTES.—Identification and classification of flowering plants. Lectures; assigned reading; laboratory; field excursions. *I*; (5). Dr. HAGUE

Prerequisite: Entrance credit in botany, or Botany 11.

5. Bacteriology.—General principles; methods of procedure; selected forms. Lectures; recitations; laboratory work. *I or II;* (5). (Course given in the first semester is repeated in the second.)

Assistant Professor RAHN, Mr. NEWELL, Mr. LUDWIG

Prerequisite: Chemistry 1; one year's university work, including one semester in botany or zoology.

6. Bacteriology for Sanitary Engineers. — Bacteriological methods; water analysis and sewage. I, last seven weeks; (2).

Assistant Professor RAHN, Mr. NEWELL

7. PLANT PATHOLOGY.—First semester: the more important diseases of cultivated plants, their causes, and methods of prevention; second semester: methods of investigation and control. (Each semester's work credited separately as 7a and 7b.) *I, II;* (5).

Dr. BARRETT

Prerequisite: Botany 1; 2 or 4.

- 8. Bacteriology.—Selected species of bacteria; investigations upon assigned subjects. *I or II;* (2-5). Assistant Professor Rahn *Prerequisite:* Botany 5.
- 9. Cytology and Physiology, Advanced Course.—Special laboratory problems in cytology and physiology. Critical discussions of current literature; reports on research work. I, II; (2-5).

Assistant Professor Hottes

Prerequisite: Two years' work in botany, including Botany 3.

- 10. CURRENT LITERATURE.—Reports and discussions upon assigned topics and results of research work. (For advanced and graduate students.) I. II: (1).
- 11. Introductory Course.—Flowering plants, their structure and activities. Lectures; laboratory; field observations; text. I; (5).

Assistant Professor Hottes, Dr. Allee, Mr. Whitten, Miss Park,

Mr. Brigham, Miss Atwell, Mr. Scherfee

14. HEREDITY AND ORIGIN OF SPECIES.—The plant cell; the physiology of its different constituents and the parts these play in

the process of fertilization; various theories of heredity and of species formation. Lectures; demonstrations; laboratory. I; (3).

Assistant Professor Hottes

Prerequisite: One year's work in the University; one semester in botany and zoology.

16. TAXONOMY OF SPECIAL GROUPS.—Laboratory and herbarium work; assigned reading. (The course extends through the year, but the work of each semester is credited separately as 16a and 16b.)

I, II; (5).

Dr. BARRETT, Dr. HAGUE

Prerequisite: Botany 4.

#### COURSES FOR GRADUATES

After at least one year of approved botanical work graduates may elect any of the courses 3, 5, 7, 8, 9, or 10 for minor credit and any of the courses 3, 7, 8, or 9, with assigned additions for major credit towards an advanced degree.

The following are open only to graduates of liberal botanical training and may, upon approval, be elected for minor or major work.

- IOI. CYTOLOGY.—The influence of external agents on the cell. Special subjects for investigation assigned upon consultation. Reports; discussions of current literature and research results. Twice a week; I, II.

  Assistant Professor Hottes
- 102. Physiology.—The effects of external stimuli on growth and movement. Special subjects for investigation assigned upon consultation. Reports; discussions of current literature and research results. Twice a week; I, II.

  Assistant Professor Hottes
- 103. Bacteriology.—Morphologic and physiological variation due to treatment; the number, validity, and relationship of species; special saprophytic or parasitic kinds of bacteria, and methods of favoring or combating their activities. Twice a week; I, II.

Assistant Professor RAHN

- 104. Mycology.—Selected groups of fungi. Individual assignments of subjects and problems. Field and laboratory. Twice a week; I, II.

  Dr. Barrett
- 106. VEGETABLE PATHOLOGY.—Diseases of plants and disease agents. Special subjects assigned upon consultation. Twice a week; I, II.

  Assistant Professor RAHN, Dr. BARRETT

### **CERAMICS**

RAY THOMAS STULL, E.M., Associate

RALPH KENT HURSH, B.S., Assistant

BARNEY S RADCLIFFE, M.S., Assistant

HENRY HARRISON BARTELLS, Research Assistant

The courses offered by the department of ceramics are designed to give a technical knowledge of the composition and properties of raw materials used in the manufacture of clay wares, cements, and glasses, and of the physical and chemical changes which they undergo during manufacture; manual skill in the manipulation of these materials; and such knowledge of machines and the applications of power as will enable the student to acquire familiarity with the construction and operation of a manufacturing plant; to understand the peculiarities of the materials with which he is to deal; and to install such machinery and introduce such methods of manufacture as will improve the quality and reduce the cost of the wares.

For the more technical work the department occupies a new building especially designed for its needs. The lecture rooms, laboratories, kiln and furnace building, drawing rooms, and library are well equipped.

The relations of the department with the clay working interests of the State are such that investigation is as much a part of its work as is instruction. Consequently, studies of both a purely scientific and a practical nature are continually in progress. Advanced students are permitted to take part in these investigations under the direction of the instructors. Seniors and graduate students are expected to conduct investigations of their own in some line of work in which they are especially interested. (For outline of courses see pages 155 and 156.)

I. CLASSIFICATION AND PHYSICAL TESTING OF CLAYS.—The properties of clays and other ceramic materials; the identification of the varieties met in practical work. Lectures; laboratory. I; (3).

Mr. Hursh, Mr. Radcliffe

Prerequisite: Chemistry 2, 3.

2. Winning and Preparation of Clays.—Commercial methods. I; (3). Mr. Radcliffe

Prerequisite: Chemistry 5b.

3. Industrial Calculations.—The designing and operation of furnaces, kilns, and dryers; temperature measurement.  $I_{\tau}$  (3).

Mr. Hursch

Prerequisite: Mathematics 8; Chemistry 5b; Physics 1 and 3.

4. Drying and Burning.—Methods of drying and burning clay wares; types of construction of industrial kiln plants; chemical and physical processes involved. I; (4).

Mr. Stull

Prerequisite: Ceramics 5.

5. Body Making.—Composition of all classes of ceramic wares; physical and chemical changes produced by the blending of the various ceramic materials; machinery and processes employed in shaping the various products. Lectures; laboratory. II; (5).

Mr. Stull, Mr. RADCLIFFE

Prerequisite: Ceramics 3.

6. GLAZES.—The production of glazes and enamels; classification; properties and defects common to each class; the effect of variation in composition; modes of application. Lectures; laboratory. I; (5).

Mr. Stull

Prerequisite: Ceramics 3, 4, 5.

8. Principles of Glass Manufacture.—The raw materials, preparation, compounding, melting, and shaping of glass; chemical principles involved in the manufacture and decoration of the different types of vitreous silicates. Lectures. II; (3). Mr. Stull

Prerequisite: Ceramics 3.

9. CERAMIC CONSTRUCTION.—Plans, specifications, and estimates of ceramic construction. II; (5).

Mr. STULL, Mr. HURSH

Prerequisite: G. E. D. 2; Ceramics 3.

10. Cements.—Limes, cements, plaster, sand-lime stone, and other cementing materials; composition; reactions; methods of manufacture and testing. Lectures. I; (3). Mr. Hursh

Prerequisite: Ceramics 3.

II. THESIS.—II; (5). Mr. STULL, Mr. HURSH

12. Designing and Shaping.—Technical designing and shaping from the standpoint of the manufacturer; die construction; laying out of work; templates; master and working molds; pressing; casting; jiggering. II; (3).

Mr. Radcliffe

Prerequisite: Ceramics 1 or 2.

13. CEMENT LABORATORY.—The preparation of cementing substances; properties; typical reactions involved in the manufacture and use of lime, lime-sand products, pozzuolane, Sorel cement.

natural and Portland cement; the behavior of the hardened products under the influence of the various agencies to which they are subjected in use. *I*; (3).

Mr. Hursh

Prerequisite: Ceramics 10.

14. Continuation of Course 13.—The production of water proof and sea water resisting cements; cement colloids; polychrome pigments for fresco decoration; cement colors; cold water paints. II; (3).

Mr. Hursh

Prerequisite: Ceramics 13.

15. The Preparation of Glass Silicates.—Soda-lime; potash-lime; lead, barium, and zinc silicates; boro silicates; properties of the fused and solidified glasses; practical problems of the glass industry.  $I_{\tau}$  (3).

Prerequisite: Ceramics 8.

16. Continuation of Course 15.—Opaque, colored, and optical glasses; the enameling of metals; cast iron; sheet iron; copper. II; (3).

Mr. Stull

Prerequisite: Ceramics 15.

#### COURSES FOR GRADUATES

Courses open to graduates of courses other than ceramics to be taken as minors: Ceramics 3, 5, 6, 8, 10, 14.

IOI. THE FORMATION OF SILICATES, involving the conceptions of physical chemistry. Lectures; laboratory. Five times a week; I.

Mr. Stull, Mr. Hursh

102. The Technology of the Clay Industries.—Mineralogical constitution of clays; plasticity and the colloidal state; adsorption; pyro-chemical and physical changes; exothermic and endothermic processes; the crystalline and amorphous state of burnt clay; thermal expansion of bodies and glazes; bodies and their interaction with glazes; the composition and constitution of glazes; dissolved and underglaze colors; translucency and opacity; the colors of rare oxides in glazes; eutectic studies; reduction and oxidation phenomena; heat radiction; conduction. Five times a week; I, II.

Mr. STULL

IO3.—TECHNOLOGY OF THE CEMENT AND MORTAR INDUSTRIES.—Fusion curves of lime, silica, lime-iron, lime-alumina, and lime-iron-alumina silicates; the action of catalyzers; crystallization of basic silicates; constitution of cement compounds; hydration and dehydration; thermal studies; colloids of hydration products; white

hydraulic cements; the factor of fineness of grain; pyro-chemical changes. Five times a week; I, II. Mr. Hursh

104. The Technology of Glass.—Fusion curves of glassy silicates; limiting compositions; solubility of the oxides in glasses; devitrification; annealing; optical properties; solubility of glass; viscosity; thermal expansion; pyro-chemical volume changes; reaction of coloring oxides; cooling curves; flashing; interaction between metal surfaces and glasses; oxidation and reduction. Five times a week; I, II.

Mr. Stull

#### **CHEMISTRY**

WILLIAM ALBERT NOYES, Ph.D., LL.D., Professor and Director SAMUEL WILSON PARR, M.S., Professor EDWARD BARTOW, Ph.D., Professor CLARENCE WILLIAM BALKE, Ph.D., Assistant Professor EDWARD WIGHT WASHBURN, Ph.D., Assistant Professor DAVID FORD McFARLAND, Ph.D., Assistant Professor GEORGE MCPHAIL SMITH. Ph.D., Associate CLARENCE GEORGE DERICK. Ph.D., Associate HENRY CHARLES PAUL WEBER, Ph.D., Associate STUART JEFFERY BATES, Ph.D., Research Associate ELLEN S McCarthy, Ph.D., Instructor DUNCAN ARTHUR MACINNES, Ph.D., Instructor GEORGE DENTON BEAL, Ph.D., Instructor B SMITH HOPKINS. Ph.D., Instructor EARLE KENNETH STRACHAN, Ph.D., Instructor LAMBERT THORP, Ph.D., Instructor CHARLES GEORGE MACARTHUR, M.A., Instructor CARL FERDINAND NELSON, Ph.D., Instructor WILHELM HIRSCHKIND, Ph.D., Instructor RALPH SYDNEY POTTER, M.S., Research Assistant EARL BOWMAN MILLARD, A.M., Assistant GEORGE WALLACE SEARS. M.S., Assistant HARVEY PEACH CORSON, M.S., Assistant OLIVER KAMM, B.S., Assistant JAMES EDGAR BELL, B.S., Assistant HENRY LAWRENCE HUENINK, A.B., Assistant HUBERT LEONARD OLIN, M.S., Assistant JOHN WILLIAM READ, M.S., Assistant CHARLES KAY HEWES, B.S., Assistant

BERT STOVER DAVISSON, A.B., Assistant RAYMOND ADAMS DUTCHER, M.S., A.M., Assistant BRONISLAV ROMAN HONOVSKI, Ph.D., Assistant ERNST KESSLER. Assistant in Glass Blowing HARPER FILER ZOLLER. B.S., Lecture Assistant PAUL STANLEY WOODWARD, B.S., Graduate Assistant ROLAND NORTON MILLER, A.B., Graduate Assistant EDWARD WALLACE ENGLE, B.S., Graduate Assistant ALBERT WAFFLE OWENS, B.S., Graduate Assistant KARL ADOLPH CLARK. A.M., Graduate Assistant GERRIT JOHN VANZOEREN. A.B., Graduate Assistant THOMAS ERNEST LAYING, A.M., Graduate Assistant CHESTER HARMON ALLEN, A.B., Graduate Assistant ERNEST ATKINS WILDMAN, B.S., Graduate Assistant RAYMOND WASHINGTON HESS, A.B., Graduate Assistant ROBERT EARL BAKER, A.B., Graduate Assistant CLINTON EDGAR GILLETTE, M.S., Graduate Assistant LAURENCE VREELAND BURTON, B.S., Graduate Assistant HENRY FRANK SCHNEIDER, A.B., Graduate Assistant ELMER TRYON EBERSOL, A.B., Graduate Assistant

The Department of Chemistry is organized under nine divisions as follows:

Elementary and Inorganic Chemistry

Qualitative Analysis

Quantitative Analysis, including Agricultural and Food Analysis
Organic Chemistry

Physiological Chemistry

Animal Nutrition

Physical Chemistry and Electrochemistry

Industrial Chemistry, including Metallurgy, Gas Analysis, and Assaying

Water Chemistry

Each of these divisions is equipped with rooms and apparatus for elementary, advanced, and graduate work. The nature of the work is apparent from an examination of the courses described below.

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry I

or 1a, 2, and 3. Those continuing in the second year should take Chemistry 5a and 5b, 5c or 13a. In the third year Chemistry 14 and 9, 9a, 9b, or 9c, 31, and 33 should be taken. With these, more special courses may be taken if desired, but, in general, students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, will naturally take the chemical course or the course in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry I or Ia in the second semester rather than in the first.

I. INORGANIC CHEMISTRY.—The non-metallic elements. Alexander Smith's General Inorganic Chemistry. I or II; (5).

Professor Noves, Assistant Professor Balke, Dr. McCarthy, Dr. Hopkins, Dr. Nelson

1a. INORGANIC CHEMISTRY.—Lectures; recitations; laboratory. I or II; (4).

Professor Noyes, Assistant Professor Balke, Dr. McCarthy, Dr. Hopkins, Dr. Nelson

Prerequisite: One year of entrance chemistry.

Ib. INORGANIC CHEMISTRY.—Inorganic chemistry. Lectures; recitations; laboratory. (For students in engineering.) I or II; (4). Professor Noves, Assistant Professor Balke, Dr. McCarthy, Dr. Hopkins. Dr. Nelson

2. INORGANIC CHEMISTRY.—A continuation of Chemistry I. The metallic elements; their classification, compounds, and chemical properties. Lectures; assigned text. Alexander Smith's General Inorganic Chemistry. I or II; (2).

Professor Noves, Assistant Professor Balke, Dr. McCarthy,
Dr. Hopkins. Dr. Nelson

Prerequisite: Chemistry 1; registration in Chemistry 3.

- 3. QUALITATIVE ANALYSIS.—Recitations; laboratory. *I or II;* (3). Dr. Weber, Dr. McCarthy, Dr. Hopkins, Dr. Nelson *Prerequisite:* Chemistry 1; registration in Chemistry 2.
- 4. QUALITATIVE ANALYSIS AND THE CHEMISTRY OF THE METALLIC ELEMENTS.—Class and laboratory work. (For students in engineering.)  $I_{j}$  (4). Dr. Weber

Prerequisite: Chemistry 1a or 1b.

5a. ELEMENTARY QUANTITATIVE ANALYSIS.—Gravimetric and vol-

umetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot's Quantitative Chemical Analysis. (Medical students are given special problems in the latter part of the course.) I; (5).

Dr. Smith, Dr. Beal

Prerequisite: Chemistry 2, 3.

5b. QUANTITATIVE ANALYSIS.—Continuation of 5a. Methods; the analysis of silicates, metallic compounds, and alloys; advanced qualitative analysis for students in the course in chemistry and chemical engineering. Lectures; laboratory. Treadwell-Hall: Analytical Chemistry, Vol II. II; (5). Dr. Smith, Dr. Beal

Prerequisite: Chemistry 5a.

5c. Food Analysis.—Quantitative organic analysis, with special reference to the examination of food and drug products: alcohols, carbohydrates, fats and oils, animal and vegetable foods, nitrogenous bodies, preservatives, and colors. Sherman's Organic Analysis; "Bulletin 107, rev., U. S. Bureau of Chemistry." II, (3 to 5).

Dr. Beal

Prerequisite: Chemistry 5a or 13a; 9 or 14.

6\*. CHEMICAL TECHNOLOGY.—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; no laboratory. II; (2).

Assistant Professor McFarland

Prerequisite: Chemistry 5a.

7\*. Metallurgy.—Lectures; assigned reading. I; (3).

Assistant Professor McFarland

Prerequisite: Chemistry 5a.

8. IRON AND STEEL ANALYSIS.—Analyses of all the constituents by both rapid, or technical, and standard methods. II; (3).

Dr. SMITH

Prerequisite: Chemistry 5b.

9. Organic Chemistry.—The characteristics of the more typical and simple organic compounds; the important classes of derivatives of carbon. Moore's Organic Chemistry. (For students of the medical preparatory course and others desiring a short course.) II; (3).

Dr. DERICK

Prerequisite: Chemistry 3.

<sup>\*</sup>Certain inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate \$15.00 for each course.

9a. Organic Synthesis.—Ultimate organic analysis; the preparation and study of typical organic compounds. Laboratory. I; (2).

Dr. Derick, Dr. Thorp, Mr. Kamm

Prerequisite: Chemistry 3; registration in Chemistry 14, or equivalent.

- 9b. Organic Synthesis and Analysis.—Continuation of 9a. II; (2). Dr. Derick, Dr. Thorp, Mr. Kamm Prerequisite: Chemistry 9a; registration in Chemistry 14, or equivalent.
- 9c. Organic Synthesis.—Typical organic compounds; the organic substances of medicinal value and of physiological importance. Laboratory. (For students in the medical preparatory course and others desiring a brief course.) II; (2).

Dr. Derick, Dr. Thorp, Mr. Kamm

Prerequisite: Chemistry 3; registration in Chemistry 9, or equivalent.

IOA. WATER CHEMISTRY.—The history, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practice in analytical methods. II; (3).

Professor Bartow

- 10b. (A modification of 10a to meet the requirements of students in sanitary engineering, registered in connection with Chemistry 2 and 3.) II;  $(2\frac{1}{2})$ . Professor Bartow
- II. Research.—Thesis embodying a thorough review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required for seniors.) I, II; (5).

Professors Noyes, Parr, Bartow, Assistant Professors Balke, Washburn, McFarland, Dr. Smith, Dr. Derick, Dr. Weber, Dr. McCarthy, Dr. MacInnes, Dr. Beal, Dr. Hopkins, Dr. Strachan, Dr. Thorp, Dr. MacArthur, Dr. Nelson, Dr. Hirschkind

13a. AGRICULTURAL ANALYSIS.—Gravimetric and volumetric analysis; analysis of fertilizers and milk. Talbot's *Quantitative Chemical Analysis*. (For students in agriculture.) *I or II*; (5).

Dr. BEAL, Dr. SMITH

Prerequisite: Chemistry 2, 3.

13b. ADVANCED AGRICULTURAL ANALYSIS.—Applied quantitative

analysis. The analysis of fungicies, limestone, phosphate rock, fuel, and water; determination of the alkali metals; special methods of agricultural analysis. Treadwell-Hall, Analytical Chemistry, Vol. II. (For students who wish to specialize in agricultural chemistry or agricultural experiments.) II; (5). Dr. Beal, Dr. Smith

Prerequisite: Chemistry 5a or 13a.

14. ORGANIC CHEMISTRY.—Lectures; recitations. Noyes's Organic Chemistry. I, II; (3). Professor Noyes Prerequisite: Chemistry 5a; should be accompanied by Chemistry oa and ob.

15. Physiological Chemistry.—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic-digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroughly for the prospective student of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Hammarsten's Text Book of Physiological Chemistry; Hawk's Practical Physiological Chemistry. (Open to graduates and undergraduates.) I; (5).

Prerequisite: Two years' work in chemistry.

15a. PROBLEMS OF PHYSIOLOGICAL CHEMISTRY.—Colloids; animal oxidations; osmosis; adsorption; selective activity of cells; metabolism; activities of gastro-intestinal tract; enzymes; inorganic nutrition. Lectures; demonstrations; conferences. II; (2).

Dr. MACARTHUR

Prerequisite: Chemistry 15.

16. CHEMISTRY FOR ENGINEERS.—The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For mechanical engineers.) II; (3).

Professor Parr, Dr. Hirschkind

Prerequisite: Chemistry 1.

- 17. TEACHERS' COURSE.—The methods of teaching elementary chemistry. I; (1).

  Assistant Professor Balke
- 21. QUALITATIVE ORGANIC ANALYSIS.—Systematic methods for identification of pure organic compounds and mixtures. *I*; (2).

Dr. DERICK

Prerequisite: Chemistry 9a, 9b.

- 22. Animal Chemistry (Nutrition).—The chemical composition of animal products and feeding stuffs. Lectures; conferences; assigned reading; laboratory. *I or II*; (5). Professor Grindley Prerequisite: Two years' work in chemistry.
- 27. QUALITATIVE ANALYSIS OF THE RARE ELEMENTS.—The rare elements and their compounds; identification and separation of the elements; formation, solubilities, and chemical reactions of their salts. Assigned reading: laboratory. II: (3).

Assistant Professor BALKE

Prerequisite: Two years' work in chemistry.

31. ELEMENTARY PHYSICAL CHEMISTRY.—Some of the more important principles and methods of physical chemistry and electrochemistry; numerous problems. Lectures; recitations. Senter's Outlines of Physical Chemistry. II; (3).

Assistant Professor Washburn, Dr. Strachan Prerequisite: Chemistry 1, 2, 3; Physics 1 or 2a; Mathematics 8a.

33. ELEMENTARY PHYSICAL CHEMISTRY.—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) II; (2).

Dr. MacInnes. Dr. Strachan

Prerequisite: Chemistry 5a; Physics 2b or 3.

35. Electrochemistry.—Electrochemistry in the industries; patents in selected industries. Lectures; recitations; laboratory; reports. Thompson's Applied Electrochemistry. I; (3 or 5.) (See also Chemistry 102b.)

Dr. MacInnes

Prerequisite: Chemistry 32, 33.

61. INORGANIC PREPARATION.—The preparation of chemical products from raw materials; manufacture and testing of pure chemicals; fractionation; other processes of the manufacturing chemist. Laboratory. II; (2).

Assistant Professor McFarland

Prerequisite: Chemistry 5a.

- 65. TECHNICAL GAS AND FUEL ANALYSIS.—Examination of gases, gas mixtures, flue gases, and fuels; determination of calorific values; calculation of efficiencies. I; (2). Professor Parr, Dr. Hirschkind Prerequisite: Chemistry 5a.
- 66. TECHNOLOGY OF GASES.—The manufacture, constituents, and uses of the various forms of gaseous fuel; calorimetry; photometry;

the more usual methods of analysis. Lectures; reading; reports; laboratory. II; (1). Professor Parr

Prerequisite: Chemistry 65.

68a. Analysis of Glasses and Glazes.—Special problems connected with the pottery industry. (For students in ceramics.) *I*; (3).

Dr. Smith

Prerequisite: Chemistry 5b.

68b. Cement Chemistry.—The analysis of cements; cement materials; pottery bodies. (For students in ceramics.) I; (3).

Dr. SMITH

Prerequisite: Chemistry 5b.

69. Assaying.—The fire assay of lead, gold, and silver ores. Fluxes; reagents; charges; typical ores; practice in use of the crucible and muffle furnaces and in the manipulations connected with fire assaying. I; (2).

Assistant Professor McFarland

Prerequisite: Chemistry 5a and Geology 5.

70. Advanced Assaying and Ore Testing.—The assay of ores of platinum, tin, copper; bullion assay; free milling, amalgamation, and cyaniding tests. (A continuation of Chemistry 69.) II; (2).

Assistant Professor McFarland

Prerequisite: Chemistry 69.

71. Wet Methods of Assay.—Technical methods for copper, lead, zinc, antimony, arsenic, tin in ores and metallurgical products.

Laboratory. I; (2). Assistant Professor McFarland

Prerequisite: Chemistry 5b.

72. Paints, Oils, Turpentines, Varnishes, and Protective Coverings for Wood and Metals:—Lectures and laboratory. II; (.). Professor Parr

Prerequisite: Chemistry 5b, 14.

73. ASPHALT, TAR, AND OIL RESIDUES.—Their sources, characteristics, composition, and examination; binders, dust preventatives, etc., used in road construction. (For students in highway engineering.)

II; (2). Professor PARR

Prerequisite: Chemistry 3 or 4.

- 76. CALORIMETRY OF FUELS.—Methods for determining the heat values of solid, liquid, and gaseous fuels. (An advanced course.) I, II; (1-3).

  Professor Park
  - 77. COMPOSITION AND CLASSIFICATION OF COAL.—Classification,

changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. II; (1).

Professor PARR

78. METALLOGRAPHY.—Constitution and microstructure of metals and alloys and the relations between their properties, chemical and mechanical treatment, and structure. Lectures; reading; and laboratory. II; (2).

Assistant Professor McFarland

93. JOURNAL MEETING.—(For juniors, seniors, and graduates.) I, II; (1). All members of the teaching staff in the chemical department.

For Juniors, Dr. Derick

For Seniors, Assistant Professor McFarland

#### COURSES FOR GRADUATES

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the work covered must have included satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to take Chemistry 31, 33, 102, 102a, 5b, 5c, 14, 9a and 9b. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 30 university credits in chemistry, and this must include satisfactory courses in general chemistry, qualitative and quantitative analysis, physical chemistry, and organic chemistry. Before receiving the degree of Doctor of Philosophy such students are expected to complete work equivalent to courses 31, 33 (or 102 and 102a), 14, 9a, 9b, 101, and 111. They are advised to take at least brief courses in gas analysis, iron and steel analysis, water analysis, assaying, and chemical technology.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and 9a, 9b, 14, 31 and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.

[101. HISTORY AND THEORIES OF CHEMISTRY.—Twice a week; I. Not given in 1912-13.

Dr. Smith]

102. ADVANCED PHYSICAL CHEMISTRY.—Twice a week; I, II.

(This course and course 102a are intended to cover a period of two years.)

Assistant Professor Washburn

Prerequisite: Chemistry I, 2; Physics I, 3; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.

[102a. Advanced Physical Chemistry.—Chemical equilibrium; the Phase Rule; certain portions of thermochemistry; photochemistry; the thermodynamics of electrochemistry. (A continuation of 102, with which it alternates.) Nernst's Theoretical Chemistry. Twice a week; I, II. Not given in 1912-13.

Assistant Professor WASHBURN

Prerequisite: The same as course 102.]

102b. ADVANCED ELECTROCHEMISTRY.—The modern theories of solution and the principles of thermodynamics in their application to the problems of electrochemistry; electrolytic conductivity and transference; electro-motive force; the energy principles underlying the transformation of chemical and electrical energy; the recent advances in the electrolysis of fused electrolytes and the applications of electricity to gaseous reactions at high temperature. Le-Blanc's Electrochemistry. Three times a week; II. Dr. MacInnes

(Open to undergraduates having the necessary preparation.) *Prerequisite:* Chemistry 31, 33; Mathematics 8a or 7 and 9.

102c. Advanced Physical and Electrochemistry.—The applications of physico-chemical methods to special problems. Laboratory.

Twice a week; I. Assistant Professor Washburn

Prerequisite: Chemistry 31, 33; registration in Chemistry 102b, or completion of Chemistry 102, 102a, or 102b; Mathematics 8a or 7 and 0.

102d. ELECTROCHEMISTRY.—Theoretical and applied electrochemistry, with emphasis on the technical side of the subject. (For students of electrical engineering.) Once a week; I, II.

Dr. MACINNES

102e. Special Topics in Physical Chemistry.—Seminar. Subject for 1912-13: Relations Between Chemical Constitution and Physical Properties. Smile's Chemical Constitution and Physical Properties. Once a week; I. Assistant Professor Washburn

Prerequisite: Chemistry 102 or 102a.

103. Advanced Inorganic Chemistry.—Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. Two to five times a week; I, II.

Assistant Professor BALKE

103a. Advanced Analytical Chemistry.—Special topics. Lectures, with or without laboratory. One to five times a week; II.

Dr. Smith

103b. Special Topics in Inorganic Chemistry.—Seminar. Werner's Neuere Anschauungen auf dem Gebiete der anorganischem Chemie. Once a week; I, II. Dr. Smith

104. Advanced Organic Chemistry.—Seminar. Kekule's linking theory, stereochemistry, stearic hindrance, molecular rearrangements, tautomerism, condensation, carbohydrates, ureids. Special attention to the application of modern physical chemistry to the study of organic problems, especially the application of chemical kinetics to tautomerism and the application of physical properties to the determination of chemical structure. Lectures; discussions. Twice a week; I, II.

Dr. Derick

[104a. Advanced Organic Chemistry.—(Continuation of 104, with which it alternates.) Twice a week; I, II. Not given in 1912-13.

Dr. Derick]

105. Advanced Physiological Chemistry.—Selected portions of physiological chemistry not covered by Chemistry 15. Three times a week; II.

Dr. MacArthur

105a. Advanced Physiological Chemistry.—Special investigations. Laboratory. Two to seven times a week; II.

Dr. MACARTHUR

105b. Advanced Physiological Chemistry.—Recent contributions of importance in the field of physiological chemistry. Once a week; I, II.

Dr. MacArthur

IO6. Animal Chemistry (Nutrition).—The recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products: the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. Five times a week; I, II.

Professor Grindley

Prerequisite: Two years' work in chemistry.

107. CALORIMETRY.—Standards and methods. One to three times a week; I, II. Professor Park

108. Metallography.—The constitution and microstructure of metals and alloys; the relations between their properties, chemical and mechanical treatment, and structure. Lectures; reading, laboratory. Twice a week; II.

Assistant Professor McFarland

Prerequisite: Chemistry 7.

IIO. WATER SUPPLIES.—The sources of contamination of water supplies and the purification of water for potable or technical use. Five times a week; I, II.

Professor Bartow

III. THESIS WORK.—A thesis will usually be required of students taking the Master's degree and will always be required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry II.)

Work may be taken in the following subjects:

PHYSICAL AND ELECTROCHEMISTRY

Assistant Professor Washburn

INORGANIC CHEMISTRY

Assistant Professor Balke, Dr. Smith, Dr. Weber
Analytical Chemistry Dr. Smith
Food Chemistry Dr. Beal
Organic Chemistry Professor Noyes, Dr. Derick, Dr. Thorp
Water Chemistry Professor Bartow

ANIMAL CHEMISTRY (Animal Nutrition)
Professor Grindley
Physiological Chemistry
Dr. MacArthur

INDUSTRIAL CHEMISTRY

Professor Park, Assistant Professor McFarland

## CIVIL ENGINEERING

IRA OSBORN BAKER, C.E., D. Eng., Professor

FRANK OLIVER DUFOUR, C.E., Assistant Professor, Structural Engineering

CHARLES WESLEY MALCOLM, C.E., Assistant Professor, Structural Engineering

ALLEN BOYER McDaniel, B.S., Assistant Professor James Elmo Smith, C.E., Associate Carroll Carson Wiley, C.E., Instructor George Wellington Pickels, Jr., C.E., Instructor Neal Bryant Garver, C.E., Instructor William Horace Rayner, B.S., Instructor Raymond Earl Davis, B.S., Instructor

I. ROADS AND PAVEMENTS.—Road improvement in country highways; means of securing it; construction of earth, gravel, and macadam roads; methods of construction, cost, durability, and desirability of the various kinds of pavement; grades; cross-sections;

assessment of cost; maintenance and cleaning. Baker's Roads and Pavements. II; (2).

Mr. Wiley

Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering 21, 22, 23.

4. RAILROAD SURVEYING.—The principles of economic location and the construction of railways; railway appliances and maintenance-of-way practice. Field practice: Preliminary and location surveys of a line of railroad of sufficient length to secure familiarity with the methods of actual practice. Each student makes a complete set of notes, maps, profiles, calculations, and estimates. Nagle's Field Manual for Railroad Engineers. I; (5).

Mr. SMITH, Mr. WILEY

Prerequisite: Civil Engineering 21, 22, 23.

4a. RAILROAD SURVEYING.—The first eleven weeks of course 4, for students in municipal and sanitary engineering. I; (3).

5r. Masonry Construction.—Baker's Masonry Construction. I;
(4). Professor Baker, Assistant Professor McDaniel.

Proposition of Applied Mechanics 5.8.6 Applied Mechanics 5.8 Appli

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20.

51. CEMENT LABORATORY PRACTICE.—Waterbury's Cement Laboratory Manual. 1; (1). Assistant Professor McDaniel.

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20; registration in 5r.

6. MASONRY AND REINFORCED CONCRETE DESIGN.—The design of reinforced-concrete beams, columns, slabs; arches, dams, retaining walls; masonry structures. II; (2).

Assistant Professor McDaniel, Mr. Smith

Prerequisite: Civil Engineering 5.

6a. Theory and Design of Reinforced Concrete.—(For students in architectural engineering, municipal and sanitary engineering, and railway civil engineering.) II; (2).

Assistant Professor Dufour, Mr. Garver

Prerequisite: Civil Engineering 5, or Architecture 5.

10. Surveying.—Areas with chains and compass; U. S. public land surveys; principles of re-establishing corners; use of transit in finding distances, areas, and in laying out buildings; use of the level in finding profiles and contours. (For students in architecture, architectural engineering, electrical engineering, and mechanical engineering.) Pence and Ketchum's Surveying Manual; II; (2).

Mr. WILEY

Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Physics 1, 3.

12. BRIDGE ANALYSIS.—The computation of the stresses in the various forms of bridge trusses, by algebraic and graphic methods, under different conditions of loading. Dufour's Bridge Engineering, Part One. 1; (2). Assistant Professor Dufour, Mr. Garver

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; and for civil engineering students, Civil Engineering 20, and for architectural engineering students, Architecture 5.

13. BRIDGE DETAILS.—Inspection of a highway bridge; computation of weight and critical investigation of a highway bridge from detailed shop-drawings; detailed estimate of cost; standard details for bridges. I; (2). Assistant Professor MALCOLM, Mr. GARVER

Prerequisite: Civil Engineering 12.

14. Bridge Design.—Individual design of a railroad plate girder and a truss span, with sections proportioned and details worked out, followed by a complete set of drawings. Dufour's Bridge Engineering, Part Two. II; (5).

Assistant Professor Malcolm, Mr. Garver

Prerequisite: Civil Engineering 12, 13.

14a. Bridge Design.—Part of course 14 above, for railway civil engineering students. II; (2). Assistant Professor Malcolm

14b. Building Design.—Design of steel-frame office buildings; estimate of cost. (For architectural engineering students.) II; (2).

Assistant Professor Malcolm

Prerequisite: Civil Engineering 12, 13.

- 15. Advanced Bridge Analysis.—The computations of stresses and deflections of continuous, draw, cantilever, suspension, and metal-arch bridges; the statically-indeterminate stresses of framed structures. Merriman and Jacoby's Roofs and Bridges, Part Four. II; (2).

  Assistant Professor Dufour
- 16. Engineering Contracts and Specifications.—The law of contract; examples of general and technical clauses used in engineering specifications. Johnson's Engineering Contracts and Specifications. II; (2).

Assistant Professor Dufour, Mr. Smith, Mr. Garver Prerequisite: Civil Engineering 5, 12, 13; Municipal and Sanitary Engineering 2, 3.

18. Theory of Reinforced Concrete.—Study of result of experiments. I; (1). Assistant Professor Dufour

Prerequisite: Mechanical Engineering I, II; Chemistry I; Physics I, 3; Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 5, 12, 13.

20. Graphic Statics.—Elements of graphic statics; determination of stresses in roof and bridge trusses and in the braced bent. Malcolm's *Elements of Graphic Statics*. II; (2).

Mr. SMITH, Mr. GARVER

Prerequisite: Mathematics 2, 4, 6; Theoretical and Applied Mechanics 7, 8, 9, 10; General Engineering Drawing 1, 2.

21. Surveying.—The theory, use, and adjustment of the compass, level, transit, plane table, and sextant. Field work; the determination of distances by pacing and with the chain and tape; the determination of areas with the compass, transit, and plane table; profile leveling. The U. S. land survey methods, and court decisions relating to the re-establishment of corners, boundaries, partition of land, interpretation of deeds, and in city and farm surveying. Tracy's Plane Surveying; Pence and Ketchum's Surveying Manual. 1; (5).

Mr. Pickels, Mr. Rayner, Mr. Davis

Prerequisite: General Engineering Drawing 1, 2; Mathematics 4.

22. Topographic Surveying.—The theory and use of the stadia and other instruments used in making a topographic survey; methods; topographic drawing; a complete topographic survey based on a system of triangulation including the calculations, and platting and completing the map; precise measurement of bases and angles. Tracy's Plane Surveying; Pence and Ketchum's Surveying Manual. II; (4).

Mr. Pickels, Mr. Rayner, Mr. Davis

Prerequisite: Civil Engineering 21; General Engineering Draw-

ing 1, 2; Mathematics 4.

23. RAILROAD CURVES.—The geometry of the circle as applied to railroad curves; the methods of locating curves in the field. Nagle's Field Manual for Railroad Engineers. II; (1).

Mr. Pickels, Mr. Rayner, Mr. Davis

Prerequisite: Civil Engineering 21, 22; General Engineering Drawing 1, 2; Mathematics 4. Taken with C. E. 22.

24. Metal Structures.—The design and calculation of stresses in mill and steel-skeleton buildings. I; (1).

Assistant Professor Malcolm

Prerequisite: Civil Engineering 12, 13, 20.

25. Seminar.—Reading and discussion of papers. Each student

presents one major and two minor papers upon assigned topics, and participates in the discussion of other papers. II; (1).

Professor BAKER

Prerequisite: Full senior standing in Civil Engineering.

30. Thesis.—First semester: Preliminary work, with weekly conferences; second semester: Specified hours for work and conferences. I; (1); II; (2). Instructor assigned by Professor Baker Prerequisite: Full senior standing in Civil Engineering.

#### COURSES FOR GRADUATES

Entrance upon graduate work in civil engineering presupposes the full undergraduate course in that subject.

107. BRIDGE DESIGN.—The determination of the stresses in swing, cantilever, and suspension bridges; structural details; shop equipment; methods of fabrication. Inspection of and report upon bridge shops or work in progress. Three times a week; I or II.

Assistant Professor Dufour

IIO. METALLIC BUILDING CONSTRUCTION.—The design of the metal skeleton of buildings for various purposes. Conferences, problems, and inspection of construction work in progress. Three times a week; I or II.

Assistant Professor Malcolm

115. REINFORCED-CONCRETE DESIGN. — The materials, design, forms, and erection of reinforced-concrete structures. Three times a week; I or II.

Assistant Professor McDaniel

## THE CLASSICS

HERBERT JEWETT BARTON, A.M., Professor, Chairman CHARLES MELVILLE MOSS, Ph.D., Professor WILLIAM ABBOTT OLDFATHER, Ph.D., Associate Professor ARTHUR STANLEY PEASE, Ph.D., Associate Professor HOWARD VERNON CANTER, Ph.D., Associate

# Majors

The requirements for a major in the classics have been defined as follows:

A major in the classics shall consist of 30 hours in Greek and Latin, of which at least 12 shall be in the secondary language, and the remaining hours in the primary language. Only those courses may count toward the major in the classics which count toward a major in Latin and Greek respectively.

A major in Greek consists of 24 hours, not including Greek 1, 17, 18, 19.

A major in Latin consists of 24 hours, not including Latin 12. Latin 1 may be counted for half credit only.

#### Honors

For honors in Greek the major shall be the ordinary one of 24 hours, as defined above; the minor shall be Latin and one other foreign language, or history, or philosophy, or English literature. Neither minor shall consist of less than 9 hours, and the two together must aggregate not less than 24 hours. No course may be counted toward these minors which is not counted toward a major by the department concerned.

For honors in Latin the major shall consist of 24 hours and shall include Latin 14 and 16; the minor shall be at least one other foreign language, preferably Greek, and one of the following: English literature, a modern language, history, or philosophy, with the same conditions as in the case of Greek.

### GREEK

#### COURSES FOR UNDERGRADUATES

Courses I to 4 inclusive are designed to meet the needs of students who cannot present Greek for entrance and yet wish to study the language.

I. BEGINNING GREEK: Grammar and Reader.—Xenophon's Anabasis, book I. I, II; (4). Dr. CANTER

2. New Testament Greek.— I, II; (2). Professor Moss

3. XENOPHON.—Anabasis, books II-IV. I; (3).

Associate Professor OLDFATHER

Prerequisite: Greek 1.

4. Homer.—Six books of the Iliad. II; (3).

Associate Professor OLDFATHER

Prerequisite: Greek 3.

5. HERODOTUS: THE LYRIC POETS.—I; (3). Professor Moss Prerequisite: Greek 4.

6. THUCYDIDES.—Books VI-VII. II; (3).

Assistant Professor PEASE

Prerequisite: Greek 5 or 7.

[7. The Drama.—I; (3). Not given in 1912-13.

Professor Moss

Prerequisite: Greek 4.]

[8. Plato.—Selected dialogues, including Phaedo; the Apology. II; (3). Not given in 1912-13. Professor Moss

Prerequisite: Greek 5 or 7.]

14. Advanced Greek Prose Composition.—II; (1).

Professor Moss

Prerequisite: Greek 6 or 8.

## GREEK LIFE AND LITERATURE IN ENGLISH

(Courses 16-20 presuppose no knowledge of Greek and are open to all students except freshmen.)

16. The Private and Public Life of the Greeks.—Lectures illustrated by photographs and slides; prescribed readings. I; (1).

Professor Moss

17. Greek Poetry in Translations.—I; (2). Professor Moss

19. GREEK DRAMA IN TRANSLATIONS.—II; (2). Professor Moss

20. HISTORY OF GREECE.—I; (3). (This course is described by the department of history as History 5.)

Associate Professor OLDFATHER

Prerequisite: One course in history or the classics.

## COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

21. Beginning Greek.—Elementary composition and grammar; lectures on Greek literature. I, II; (4). Professor Moss

#### COURSES FOR GRADUATES

Preparation for graduate work in Greek should include two years of college Greek in addition to entrance requirements,

103. Principles of Comparative Grammar.—This course may be counted either for Greek or Latin credit. Three times a week; I.

Dr. CANTER

104. Homer and the Homeric Question.—Twice a week; I, II; (Alternates with 105.)

Associate Professor Oldfather

[105. Plato and Aristotle.—Twice a week; I, II. Not given in 1912-13. Associate Professor Oldfather]

106. GREEK DRAMA.—Twice a week; I, II. Professor Moss [107. GREEK ORATORY.—Twice a week; I, II. Not given in 1912-13. Professor Moss]

#### LATIN

### FIRST-YEAR COURSES

I. PLINY AND VERGIL.—Selections from Pliny's Letters and the Aeneid. I, II; (4). Assistant Professor Pease, Dr. Canter Prerequisite: Three entrance units in Latin.

2. LIVY, PLAUTUS, AND TERENCE.—Selections from Livy; the Captivi of Plautus; the Phormio of Terence. I, II; (4).

Professor Barton

Prerequisite: Four entrance units in Latin.

#### SECOND-YEAR COURSES

3. SALLUST AND CICERO.—Selections from the Jugarthine War; De Senectute. I; (3). Dr. CANTER

Prerequisite: Latin 2.

4. CATULLUS AND HORACE.—Selections from the lyrics of Catullus and the *Odes* of Horace. *II*; (3). Professor Barton *Prerequisite*; Latin 2.

5. Latin Composition.—Grammatical drill; practice in the simpler forms of expression. I, II; (1). Dr. Canter Prerequisite: Latin 1 or its equivalent.

#### ROMAN LIFE AND LITERATURE IN ENGLISH

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen.)

12. Vergil and Horace in English Translations.—I; (1).

Professor Barton

- 13. Roman Life.—The family; amusements; education; morals; society; monuments. Lectures, illustrated by photographs and slides. II; (1). Professor Barton
- 19. Roman History.—II; (3). (This course is described by the department of history as History 6.)

  Dr. Canter

Prerequisite: One course in history or the classics.

## COURSES FOR ADVANCED UNDERGRADUATES

7. Horace and Juvenal.—Selections from the Satires and Epistles of Horace; selected Satires of Juvenal. I; (3).

Assistant Professor Pease

Prerequisite: 12 hours' credit in Latin.

8. TACITUS.—The Annals, books I-VI. II; (3).

Assistant Professor PEASE

Prerequisite: 12 hours' credit in Latin.

9. Teachers' Course.—The purpose and methods of preparatory Latin instruction; the teacher's preparation. II; (2).

Professor Barton

Prerequisite: 18 hours' credit in Latin. A portion of this requirement may be waived for those who have taught Latin.

10. LATIN COMPOSITION.—The leading principles; imitation of assigned models. I; (2).

Professor Barton

Prerequisite: 12 hours' credit in Latin, including Latin 5 or its equivalent.

#### COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

14. SENECA.—Selections from his letters and tragedies. I; (3).

Professor Barton

Prerequisite: 18 hours' credit in Latin.

16. MARTIAL AND SUETONIUS.—Selections. II; (3).

Associate Professor OLDFATHER

Prerequisite: 18 hours' credit in Latin.

#### COURSES FOR GRADUATES

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.

IOI. PRINCIPLES OF COMPARATIVE GRAMMAR.—(The same as Greek 103.) Three times a week; I. Dr. Canter

103. CICERO.—De Natura Deorum and De Divinatione. Twice a week; I.

Assistant Professor Pease

104. PALAEOGRAPHY.—Once a week; I.

Assistant Professor PEASE

[105. LATIN POETRY.—Twice a week; II. Not given in 1912-13.
Assistant Professor Pease]

106. LATIN COMEDY.—Twice a week; I, II.

Associate Professor OLDFATHER

107. EPIGRAPHY.—Twice a week; II.

Assistant Professor PEASE

108. TACITUS.—The Histories. Twice a week; II.

Professor BARTON

109. VERGIL.—Twice a week; II. Assistant Professor Pease

IIO. SEMINAR.—Once a week; I, II.

Associate Professor Oldfather, Assistant Professor Pease, and other members of the department

## COMMERCIAL LAW

(See Economics and Accountancy.)

### DAIRY HUSBANDRY

WILBUR JOHN FRASER, M.S., Professor, Dairy Husbandry
NELSON WILLIAM HEFBURN, M.S., Associate, Dairy Manufactures
ROYDEN EARL BRAND, M.S., Associate, Dairy Husbandry
HORATIO NEWTON PARKER, Instructor, Municipal and Sanitary Dairying

LEROY LANG, M.S., Instructor, Dairy Manufactures
WILLIAM TRUMAN CRANDALL, B.S., Instructor, Milk Production
RAY STILLMAN HULCE, B.S.A., Assistant, Milk Production
OLIVER ARNOLD KELLER, B.S., Assistant, Dairy Manufactures
HARRISON AUGUST RUEHE, B.S., Assistant, Dairy Manufactures
FRANK ASHMORE PEARSON, B.S., Assistant, Dairy Husbandry
WILLIAM FIRTH WELLS, B.S., Assistant, Municipal Dairying

#### COURSES FOR UNDERGRADUATES

City Milk Supply: Dairy Husbandry 8, 11
Dairy Cattle: Dairy Husbandry 2, 16, 17, 21
Manufactures: Dairy Husbandry 1, 3, 7, 19, 22

- I. Advanced Milk Testing.—Official testing; inspectors' methods; tests for purity and adulteration; lactometer; acid tests; tests for preservatives; butter analysis; moisture, salt, and fat tests; Lectures; assigned readings; laboratory practice. (Alternates with Dairy Husbandry 16 if desired.) I; (3). Mr. Hepburn, Mr. Lang
- 2. DAIRY CATTLE.—Dairy type and its relation to milk and butter fat production; origin and history of breeds, their characteristics, type and adaptability to the various markets and climatic conditions; use of breed score card; prominent families and individuals in principal herds; herd improvement; selection of animals on performance and breed records and physical conformation; grading up by use of superior sires. Lectures; recitations; judging. *I*; (5).

Mr. CRANDALL

3. Elements of MILK Testing.—The composition of milk and milk products; milk and cream testing; care of milk and cream on the farm. Lectures on the use of the hand separator. I, II; (1).

Mr. HEPBURN, Mr. LANG, Mr. RUEHE

7. Butter Making and Factory Management.—Cream receiving and ripening; pasteurization; use of commercial starters; churning, salting, working, and marketing of butter; butter scoring; separators; special problems for the manufacture of butter; private and co-operative management of creameries; centralizers' sys-

tems; creamery accounting and business methods; refrigerating; ice cream making; location and planning of creamery buildings. Lectures; assigned readings; laboratory practice. II; (5).

Mr. HEPBURN

Prerequisite: Dairy Husbandry I.

8. City Milk Supply.—Producing and marketing clean milk for public consumption; sanitation of the dairy barn and milk house; scoring and inspection of dairies; standardization, bottling, transportation, and delivery of milk; communicable disease; value of milk as a food; milk beverages; certified milk; milk commissions; legal regulations of cities and states. (Alternates with Dairy Husbandry II if desired.) II; (3).

Mr. Parker

Prerequisite: Dairy Husbandry 1.

11. DAIRY BACTERIOLOGY.—The relation of bacteria to the dairy industry; changes commonly effected in milk by bacteria; market milk; inspected milk; certified milk; pasteurized milk; bacteria characteristic of different groups; bacteria producing milk of unusual character; preserved milks; butter; oleomargarine; cheese. (Alternates with Dairy Husbandry 8 if desired.) II; (3).

Mr. PARKER

Prerequisite: Dairy Husbandry 1; Botany 5 or 12.

12. Investigation and Thesis.—Professor Fraser, Mr. Hepburn, Mr. Parker

16. FEEDING DAIRY CATTLE.—Compounding rations for dairy cows; preparation of feeds; study of station feeding tests; effect of feeds on milk products; calf raising, feeding, and general care; barn arrangement for storage and feeding; types of mangers; silos, location and types. Opportunity given to study the feeding of the University dairy herds as well as the working of the types of silos in use. (Alternates with Dairy Husbandry I if desired.)

I; (3).

Professor Fraser, Mr. Hulce

Prerequisite: Dairy Husbandry 3 and Animal Husbandry 5, or their equivalents.

17. Advanced Study of Dairy Breeds.—Origin and history; detailed history of prominent families and noted individuals, their characteristics and producing abilities; pedigree work and performance records; advanced registry systems; problems peculiar to the breeder of pure-bred dairy cattle. Lectures; assigned readings; seminar work. II; (2).

Mr. Crandall

Prerequisite: Dairy Husbandry 16, 3.

19. FARM DAIRYING.—Systems of creaming milk; the care and use of the hand separator; the various makes of machines; farm buttermaking; ripening cream; churning, working, and marketing butter on the farm. I; (2). Mr. Hepburn, Mr. Lang, Mr. Ruehe

Prerequisite: Dairy Husbandry 1.

21. Systems of Dairy Farming.—Relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd of the highest efficiency; economy of crops and rations; systems of cropping; organization of farm; location and arrangement of buildings and lots; farm accounts, records, and inventories; markets; care and disposal of milk at the greatest profit. II; (5).

Professor Fraser, Mr. Brand

Prerequisite: Dairy Husbandry 2, 16.

22. Cheese Making.—Ripening and setting milk; cutting, cooking, and dipping curd; cheddaring, milling, matting, and salting curds; pressing and curing cheese; the different varieties of cheese; practice in making more common varieties. *I*; (3).

Mr. LANG, Mr. RUEHE

Prerequisite: Dairy Husbandry 1.

#### COURSES FOR GRADUATES

IOI. ECONOMIC MILK PRODUCTION.—Differences in the efficiency of dairy cows, cause and effect of the same, and the relation this bears to successful dairy farming. Twice a week; I, II.

Professor Fraser

102. Research.—The investigation in progress in the dairy herds of the state. Twice a week; I, II. Professor Fraser

# DRAWING, GENERAL ENGINEERING

HARVEY WILLARD MILLER, M. E., Associate
ROBERT KENT STEWARD, C.E., Instructor
FRANCIS MARION PORTER, M.S., Instructor
HAROLD ORDWAY RUGG, C.E., Instructor
HARVEY HERBERT JORDAN, B.S., Instructor
ROY RUDY CARTER, B.S., Assistant
WALTER STEPHEN NELSON, Half-time Assistant

1. ELEMENTS OF DRAFTING.—Lettering; isometric oblique and perspective drawing; orthographic projection; machine sketching; working drawings. Lettering: mechanical styles and the making of name plates and titles for mechanical drawings. Mechanical draw-

ing: 12 plates from copy, with tracings of each, and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines, followed by complete working drawings. Tracings duplicated in blue-print form. Time sketches of the equipment in the shops and laboratories; Miller & Steward's Plate Specifications. I; (4).

Mr. Miller, Mr. Steward, Mr. Porter, Mr. Rugg, Mr. Jordan, Mr. Carter, Mr. Nelson

2. Descriptive Geometry.—The point, line, and plane; the properties of surfaces; intersections and developments. (For architects, perspective instead of intersections and developments.) Practical problems. Recitations precede the work in the drawing room at each period. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each, constitute each week's work. Miller's Descriptive Geometry. II; (4).

Mr. Miller, Mr. Steward, Mr. Porter, Mr. Rugg, Mr. Jordan, Mr. Carter, Mr. Nelson

Prerequisite: Solid geometry, college algebra, plane trigonometry.

## **ECONOMICS**

(Including Accountancy)

(See also History, Political Science, and Sociology.)

David Kinley, Ph.D., LL.D., Professor
Maurice Henry Robinson, Ph.D., Professor
Ernest Ritson Dewsnup, A.M., Professor
Ernest Ludlow Bogart, Ph.D., Professor
Nathan Austin Weston, Ph.D., Assistant Professor
John Christie Duncan, Ph.D., Assistant Professor
Simon Litman, D.Jur. Pub. et Ret. (Cam.), Assistant Professor
John Giffin Thompson, Ph.D., Instructor
Oscar Ross Martin, A.B., Assistant
George William Dowrie, A.M., Assistant
Charles Manfred Thompson, A.M., Assistant
Ernest Albert Rich, Student Assistant

The department of economics includes general economics, economic history, finance, commerce, commercial law, industry, railway administration, and accountancy.

Courses 7, 22, 26, and 27, English Economic History, the Eco-

nomic History of the United States, Economic Resources, and Modern Industries, are open to freshmen without previous requirement. Courses numbered 101 and above are open to graduate students only.

Courses 4a, 4b, 5, 8, 10, 11, 12, 13, 17, 21, 29, 30, 41, 42, 43, and 45 are open to graduates and advanced undergraduates.

#### Honors

For honors in economics, at least thirteen of the twenty-four hours required in the major subject shall be in courses requiring Economics I as a prerequisite.

One of the minors shall be selected from the following subjects: history, political science, sociology, and accountancy. The other minor shall be selected with the approval of the department.

i. Principles of Economics.—I; (5).

Assistant Professor Weston and others

Prerequisite: At least thirty hours of university work.

2. Principles of Economics.—(Section A open to junior and senior science and engineering students only; section C open to junior and senior agricultural students only.) I; II; (2).

I; Professor Robinson, Professor Bogart, Dr. Thompson, Mr. Downie

II; Professor Dewsnup, Dr. Thompson, Mr. Dowrie

3. Money and Banking.—The history and theory of money, credit, and banking. II; (3).

Assistant Professor Weston

Prerequisite: Economics 1.

[4a. Financial History of the United States to the Civil War.—Colonial and federal finance; currency, banking, tariff, and fiscal questions. II; (2). Not given in 1912-13.

Assistant Professor Weston

Prerequisite: Economics 3; senior standing.]

4b. Financial History of the United States Since 1860.—The finances of the Civil War and Reconstruction period; recent development of public and private finance; II; (2).

Assistant Professor Weston

Prerequisite: Economics 3; senior standing.

5. Public Finance.—Public expenditures; financial administration; taxation; public debts. I; (3). Professor Bogart

Prerequisite: Economics 1, 3. Students who have had 6 hours in history and Political Science 1 and who present a statement from the department of political science showing that they are taking

political science as a major, may be admitted without Economics 3.

6. Business Organization.—Business enterprises and their organization: Characteristics and relative advantages of individual proprietorship, partnership, and corporation; organization for operating purposes; effect of organization on business and technical efficiency; organization and work of commercial and industrial associations. II; (2).

Professor Robinson

Prerequisite: Economics I, and 3 either preceding or concurrent. Open to students of Business Administration only.

7. English Economic History.—The industrial development of England; the manorial system; the gilds; the commercial policy and expansion of the seventeenth and eighteenth centuries; the industrial and manufacturing growth of the nineteenth century. (Open to freshmen and sophomores only.) I; (3).

Professor Bogart

8. The Money Market.—Dealings in money and credit; functions of money broker and banker; concentration of financial dealings at such centers as New York and London; international payments and the determination of rates of foreign exchange; seasonal demands for money; causes of fluctuation in rates of discount; monetary panics and crisis; investments; financial aspects of dealings on the stock and produce exchanges. II; (2).

Assistant Professor Weston

Prerequisite: Economics 9. Open to students of Business Administration only.

PRACTICAL BANKING.—Practical banking in the United States.
 Assistant Professor Weston

Prerequisite: Economics 3 and senior standing. Open to students of Business Administration only.

IO. CORPORATION MANAGEMENT AND FINANCE.—The growth of corporations; their causes and forms; the promotion, financiering, incorporation, and capitalization of corporate consolidations; their organization and securities; position and relations of stockholders and directors; analysis of reports; stock speculation; relations of industrial corporations to international competition; receiverships and reorganizations; social and political effects. *I*: (3).

Professor Robinson

Prerequisite: Economics 1, 3.

11. INDUSTRIAL CONSOLIDATION.—The development of industrial consolidation; growth of monopoly; monopoly prices and

methods; ability of trusts to affect prices, wages, interest, and profits; the proposed plans for controlling trusts. II; (3).

Professor Robinson

Prerequisite: Economics 10.

12. Labor Problems.—The history of trade unions; internal organization; restrictions as to membership; collective bargaining; limitation of output; objections to piece work; strikes; boycots; injunctions. I; (3).

Assistant Professor LITMAN

Prerequisite: Economics 1, 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major may be admitted without Economics 3.

13. ECONOMIC DEVELOPMENT OF EUROPE SINCE THE INDUSTRIAL REVOLUTION.—The economic history of France, Germany, and England since the period of the industrial revolution. *II*; (3).

Professor BOGART

Prerequisite: At least sixty hours of university work, including Economics I and 3. Students who present a statement from the department of history, showing that they are taking history as a major, may be admitted without Economics 3.

16. Economic Problems.—Section A: Railway problems; taxation of corporations; the labor question. Section C: Special topics relating to agriculture. (A open to students in engineering; C to students in agriculture only.) II; Sec. A (2); Sec. C (3).

Professor Robinson, Professor Bogart, Dr. Thompson, Mr. Downie

Prerequisite: Economics 1 or 2.

17. Economic History of Agriculture.—General characteristics of agriculture and its development as an industry in various countries at various times; land tenure and landed property; large, medium, and small farms or estates; economic conditions and results of extensive and intensive culture; agricultural credit and markets; agricultural labor; state of the agricultural class; organization in agriculture; relation of agriculture to other industries; relation of the state to agriculture; general aspects of farm organization and management. II; (2).

Dr. Thompson

Prerequisite: Economics 1, 3; senior standing. Seniors in the College of Agriculture who have had Economics 1 or 2 may be admitted to the course by special permission of the instructor.

18. Senior Seminar.—Investigation in economics, commerce,

and industry; preparation of theses. (For business students and others making economics a major.) I, II; (4-8 for the year).

Professor Robinson

21. Socialism and Social Reform.—The historically important socialistic theories; the socialism of Karl Marx and the resulting social movements. II; (3). Assistant Professor LITMAN

Prerequisite: Economics I and 12.

22. The Economic History of the United States.—The explorations and settlements that led to the colonization of this continent; the growth of industry, agriculture, commerce, transportation, and labor from the simple, isolated agricultural communities of the colonies to the complex industrial and commercial society of today. (Open to freshmen and sophomores only.) II; (3).

Professor BOGART

- 24. STATISTICS.—See Mathematics 23a, 31, and 129.
- 25. COMMERCIAL LAW.—Contracts; negotiable instruments; agency; partnership; business corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance. *I, II;* (3).

  Mr. RICH

Prerequisite: At least sixty hours of university credit including Economics 1 or 2 and Accountancy 1.

26. Economic Resources:—Environmental influences affecting commercial and industrial development; important products and industries of different countries; extent and distribution of the resources and the industrial and commercial activities of the United States. (Open to freshmen and sophomores only.) *I*; (3).

Assistant Professor LITMAN

27. Modern Industries.—The raw materials of commerce; their geographical distribution and economic significance; the leading industries engaged in the utilization of these materials; sources of power; investment of capital; employment of men and of machinery; progressive stages of production; distribution of finished commodities. (Open to freshmen and sophomores only.) II; (3).

Assistant Professor LITMAN

Prerequisite: Economics 26, or an approved high school course in commercial geography.

28. MECHANISM AND TECHNIQUE OF DOMESTIC COMMERCE.—The principles and methods of buying and selling in internal trade; forms of wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and

coöperative stores; commercial travelers; commercial competition; theory and practice of modern advertising; mercantile credit. *I*; (3).

Assistant Professor LITMAN

Prerequisite: Economics 1, 3, 26 or 27.

[29. Foreign Commerce and Commercial Politics.—Problems arising in connection with international trade relations, and various attempts to solve them; changes in theories and in policies; economic systems (mercantile, free-trade, protective); classes of customs tariffs; commercial treaties; promotion of shipping; institutions for furthering export trade (commercial museums, consular service).  $I_{;}$  (3). Not given in 1912-13.

Assistant Professor LITMAN

Prerequisite: Economics 1, 3, 26 or 27.]

[30. Tariff and Customs Regulations of the United States.— Tariff legislation in the United States; the present tariff system; organization and work of the custom house; entry of goods. II; (3). Not given in 1912-13. Assistant Professor Litman

Prerequisite: Economics 29.]

31. Organization of Foreign Commerce.—Exporting and importing; means of communication and of transportation; the shipping business; duties of consuls. *II*; (3).

Assistant Professor LITMAN

Prerequisite: Economics 28.

33. Economics of Insurance.—The historical development of insurance and its economic aspects. I; (2). Professor Robinson Prerequisite: Economics 1, 3.

[34. Property Insurance.—Fire, marine, title, and credit insurance and corporate suretyship; technical characteristics and economic effects. II; (2). Not given in 1912-13.

Professor Robinson

Prerequisite: Economics 33.1

41. RAILWAY TRANSPORTATION.—General aspects in the United States; conditions abroad. Introduction; growth and present extent of the railway system; the relation of waterway and interurban competition to railway development; the railway corporation and its financial aspects; the management of a railway; railway combinations; the theory and practice of rate-making; relations with state and federal governments; the relation of European railways to the state. *I*; (3). Professor Dewsnup

Prerequisite: Economics 1, 3; for engineers, Economics 2.

42. RAILWAY RATES; THEIR CONSTRUCTION AND REGULATION.—Rate structure in the United States; the policy of the Interstate Commerce Commission as shown by its decisions; the relation of such policy to the various theories of rate making. II; (3).

Professor Dewsnup

Prerequisite: Economics 41.

[43. THE THEORY AND PRACTICE OF RAILWAY TRAFFIC ADMINISTRATION.—The organization and methods of traffic management; problems connected therewith. (Registration in the second semester permitted only to those who obtain credit in the first semester.)

I, II; (2). Not given in 1912-13.

Professor Dewsnup

Prerequisite: Economics 1, 3. Open to students of Business

Administration only.]

45. RAILWAY OPERATION AND ITS PROBLEMS.—Organization of the operating department; economic problems of maintenance of way, and of motive power and equipment; the purchase of materials and their distribution; train movement; yard and terminal services; labor and discipline. (Registration in the second semester permitted only to those who obtain credit in the first semester.) I, II; (2).

Professor Dewsnup

Prerequisite: Economics 1, 3. Open to students of Business Administration only.

#### COURSES FOR GRADUATES

Every student entering upon graduate work in economics must have had a thorough course in the principles of the science and should also have studied some special part of the field of economics, such as public finance or money and banking.

The department of economics includes general economics, eco-

nomic history, finance, commerce, and industry.

Complete sets of all the important French, German, English, and American economic and financial journals are on hand; ninety periodicals, foreign and domestic, in economics, finance, commerce, industry, statistics, etc., are currently received. The library is unusually strong in railroad literature, economic history, labor, finance, and general theory.

101. ECONOMIC THEORY.—Twice a week; I, II.

Professor KINLEY

[102. ADVANCED GENERAL ECONOMICS.—Twice a week; I, II. Not given in 1912-13. Professor Kinley]

103. RAILWAY ADMINISTRATION.—Topics relating to current

railway management are assigned for investigation, report, and discussion. The course is primarily intended for candidates for the degree of A.M. in Railway Administration. Once a week; I, II.

Professor DEWSNUP

104. Foreign and Colonial Commerce of the United States .-The foreign commerce of the United States as shown in government publications. Twice a week: II.

Assistant Professor LITMAN

[105. Public Finance.—The history and theory of public revenue and expenditure. Twice a week; I, II. Not given in 1912-13.

Professor Bogartl

106. RAILWAY POLICY.—A: Railway development in the United States. B: Railway development in foreign countries, particularly in western Europe. C: The state and the railway. Three years required for the completion of the course. The topic in 1912-13 is C. Professor DEWSNUP Once a week: I. II.

107. THE CORPORATION IN ECONOMIC EVOLUTION.—Once a week; Professor Robinson I, II.

[109. THEORY OF INDUSTRIAL CONSOLIDATIONS.—Nature of industrial consolidations; conditions and causes responsible for their development; their effects upon the production and distribution of wealth. Once a week; I, II. Not given in 1912-13.

Professor Robinsonl

118. SEMINAR.—I. II. Professor Kinley and others [120. HISTORY OF ECONOMIC THOUGHT.—Twice a week; I. Not given in 1912-13. Dr. THOMPSON1

ADVANCED ECONOMIC HISTORY OF THE UNITED STATES .-Twice a week; I, II. Professor BOGART

# ACCOUNTANCY

(See also Economics.)

Note:—The only courses in accountancy open to students not registered in Business Administration are 1, 10, and 11.

Courses 4, 5, 6, and 7 are open to graduates and advanced undergraduates.

I. PRINCIPLES OF ACCOUNTANCY.—Keeping accounts of various kinds of business, mercantile, industrial, and financial; accounting for various types of business organization; industrial and commercial statistics of a plant, and proper deductions as to efficiency of departments and soundness of business policy; designing of accounting systems for different kinds of businesses. (If elected this course must be taken throughout the year in order to secure credit.) I, II; (3). Assistant Professor Duncan, Mr. Martin

Prerequisite: Thirty hours of university credit; registration in

3. Industrial Accounting.—Types of industries; methods of installing accounting systems to suit their technical peculiarities, for the purpose of revealing costs and efficiency in management both for the plant as a whole and by departments.  $I_{ij}$  (2).

Assistant Professor DUNCAN

Prerequisite: Accountancy 1.

4. Advanced Accounting.—The handling of capital, revenue, dissolution of partnership, realization, liquidation, insolvency, goodwill, treatment of bad debts, suspense, maintenance, depreciation, reserve, and sinking funds, contingent funds, secret reserves, and the like. II; (3). Assistant Professor Duncan

Prerequisite: Accountancy 1.

5. AUDITING.—The duties and responsibilities of an auditor; kinds of audits; value of each; the auditor's report, what it should contain; his certificate, its value; the preparation of audit reports. (For students of accountancy only.) II; (2).

Assistant Professor Duncan

Prerequisite: Accountancy 4, 7.

[6. RAILROAD ACCOUNTING.—The handling of railroad revenue accounts, including freight, passenger, express, and other earnings from the road and allied companies; the treatment of operating expenses, fixed charges, the work of the Interstate Commerce Commission in standardizing railway accounting methods. II; (2). Not given in 1912-13.

Assistant Professor Duncan

Prerequisite: Accountancy 4, 7. For students of accountancy and railway traffic and accounting only.]

7. Advanced Accounting Problems.—Continuation of Accountancy 4. Practical problems. Special topics: executor accounts, insurance accounts, and accounting for municipalities and other public bodies. *I*; (3).

Assistant Professor Duncan

Prerequisite: Accountancy 4.

IO. SHOP MANAGEMENT AND COST KEEPING.—Types of industries, how they influence plant layouts, the laborers needed, and the materials used; types of records suitable for each kind of industry in order to approximate costs of manufacture and to deter-

mine and compare the efficiencies of departments, of individual workers, of methods of production, and the like. The work is presented from the standpoint of the engineer and shop manager. II;

(2). Assistant Professor Duncan

Prerequisite: Open only to engineering students who have

had Economics I or 2.

II. FARM ACCOUNTING.—Single and double entry; designing of accounting systems for different kinds of farm operations and for different kinds of farming. I; (2).

Mr. Martin

Prerequisite: Open to junior and senior students of agriculture

only.

## **EDUCATION**

WILLIAM CHANDLER BAGLEY, Ph.D., Professor LOTUS DELTA COFFMAN, Ph.D., Professor LEWIS FLINT ANDERSON, Ph.D., Assistant Professor WILFORD STANTON MILLER, A.M., Assistant and Secretary

The courses of the department fall into two general divisions: courses primarily for professional training and courses more specifically designed for general culture. The first division includes courses I, 3, 4, 6, 9, 10, 11, 19, and 20; the second division, courses 2, 12, 13, 17, and 18. Students majoring in education will be required to take at least three hours in psychology in addition to the requirements in education. Courses I and 5 in psychology are especially recommended.

## Honors

Candidates for honors in education must offer:

- 1. A minimum of 18 hours in education and 6 hours in psychology. Teachers' courses, not to exceed 3 hours in all, offered by other departments of the University, may, with the approval of the department of education, be counted as part of this requirement.
- 2. Minors in either (1) psychology (at least 9 hours exclusive of the 6 hours counted toward the major) and one subject selected from those that are usually taught in secondary schools, or (2) any two related subjects commonly taught in secondary schools. No course may be counted toward the minimum requirement for minors which may not be counted toward the major requirement in such subjects.

## INTRODUCTORY COURSES

I. PRINCIPLES OF EDUCATION.—The processes of education traced back to the basic principles of biology, psychology, and sociology which explain and justify them. (Preceded by a brief sketch of the public school system.) I; (3). Professor Bagley

Prerequisite: Two years of university work.

2. HISTORY OF EDUCATION.—The development of educational theory and practice in their relation to the history of civilization. II; (5).

Assistant Professor Anderson

Prerequisite: Two years of university work.

## INTERMEDIATE COURSES

[3. GENERAL METHOD.—II; (3). Not given in 1912-13.]

TO. OBSERVATION AND THE TECHNIQUE OF TEACHING.—Systematic observation of classroom work in neighboring high schools; weekly conferences for the discussion of observations; two lectures each week upon the technique of teaching; preparation by students of plans illustrating types of school exercises. *I*, *II*; (3).

Professor BAGLEY

Prerequisite: Education 1.

[II. PRACTICE TEACHING.—I or II; (5). Not given in 1912-13.]

15. School Hygiene.—The hygienic aspects of school architecture and equipment; the hygiene of posture, exercise, and fatigue, and of reading and writing; the bearing of hygienic principles upon the course of study, the daily program, and other details of administration and teaching. II; (3).

Professor Bagley

Prerequisite: Education I.

16. Social Education.—The school as a social factor in its relation to the home, the church, and the state; relation of education to child labor, vocation, and crime; educational extension. II; (3).

Professor Coffman

Prerequisite: Two years of university work.

23. AGRICULTURAL EDUCATION .-- II; (3).

Assistant Professor Nolan

ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

4. PROBLEMS OF EDUCATIONAL ADMINISTRATION.—The interpretation of present tendencies as exemplified in the school systems of typical cities and states, and in recent educational experiments in administration, discipline, methods, and subject-matter. *I*; (3).

Professor Coffman

Prerequisite: Education 1, 2.

5. Comparative Education.—Elementary and secondary education in the United States, England, Germany, and France. 1; (3)

Assistant Professor Anderson

Prerequisite: Education 1, 2.

6. Principles of Secondary Education,—High School organization and management; educational value of subjects represented in the secondary curriculum; the structure of the course of study; the technique of secondary teaching and management. II; (3).

Professor Coffman, Assistant Professor Hollister

Prerequisite: Education 1.

12. HISTORY OF AMERICAN EDUCATION.—(Subject to the approval of the Graduate School faculty.) I; (2).

Assistant Professor Anderson

Prerequisite: Education 2.

13a. Educational Classics.—The sources of the history of education; the educational writings of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Rousseau. I; (3).

Assistant Professor Anderson

Prerequisite: Education 2.

13b. EDUCATIONAL CLASSICS.—(Continuation of 13a.) The educational theories of Pestalozzi, Herbart, Froebel, Herbert Spencer, and others. II; (3). Assistant Professor Anderson

Prerequisite: Education 2.

[18. Principles of Esthetic, Moral, and Religious Education—I; (3). Not given in 1912-13.]

20a. Theory of Supervision.—The problems of supervision; the supervisor's functions in training and improving teachers. (Open only to graduate students and to seniors who are either graduates of normal schools or experienced teachers, or who are preparing for the work of supervision in special subjects, such as household science, manual training, and physical training.) II; (3).

Professor Coffman

Prerequisite: Education 1.

[20b. Theory and Practice of School Supervision.—II; (5). Not given in 1912-13.]

25. EDUCATIONAL PSYCHOLOGY.—(See Psychology II.) II; (3).

Professor Bagley

#### COURSES FOR GRADUATES

Graduate students who are taking their major work in education must have had as a prerequisite for such study Education 1, 2, and

Io and at least one elementary course in psychology. Work in the biological sciences, in philosophy, and in psychology is also recommended.

101. SEMINAR.—I, II.

Professor Bacley, Professor Coffman, Assistant Professor

108. HISTORY OF INDUSTRIAL AND VOCATIONAL EDUCATION.—Industry and industrial training in Egypt, Greece, Rome; industry and industrial training in the Middle Ages; the industrial revolution and its effect upon education; recent tendencies in the development of agricultural and industrial high schools, agricultural colleges, monotechnic schools, continuation schools. Twice a week; II.

Assistant Professor Anderson

[III. PRACTICE TEACHING.—I, II. Not given in 1912-13.]

112. PRINCIPLES OF EDUCATION.—The organization of public education in the United States and other countries, the aims of education; a brief resume of the principles of teaching. (Designed for the general student and not open for credit to students who have elected education as a major subject.) Twice a week; I.

Professor Bagley

THE ELEMENTARY CURRICULUM.—The functions and values of elementary school subjects; practical exercises in the construction of school curricula. (Designed especially for superintendents and principals.) Three times a week; I. Professor Coffman

## ELECTRICAL ENGINEERING

ERNST JULIUS BERG, M.E., D.Sc., Professor

MORGAN BROOKS, Ph.B., M. E., Professor

ELLERY BURTON PAINE, M.S., E.E., Assistant Professor

EDWARD HARDENBERGH WALDO, A.B., M.E., Assistant Professor

JOHN MYRON BRYANT, M.S., E.E., Assistant Professor

FRANK GARDNER WILLSON, B.S., Instructor

LEONARD VAUGHAN JAMES, M.S., Instructor

HARRY GRAY HAKE, M.S., Instructor

IRA WILLIAM FISK, B.S., Instructor

FRANK CARLTON LORING, A.M., Instructor

t. Electrical Engineering.—Principles of electrical machinery;

selection, installation, and operation; distribution of power; motor applications. (For municipal and sanitary engineers.) II; (2).

Professor Brooks

Prerequisite: Physics 1, 3; junior standing.

3. DYNAMO ELECTRICAL MACHINERY.—Laws of electric and magnetic circuits; principles of construction and operation of direct current generators and motors.  $I_{\mathcal{F}}(3)$ .

Assistant Professor Paine, Assistant Professor Bryant, Mr. James, Mr. Hake

Prerequisite: Physics 1, 3; Mathematics 9.

5. ALTERNATING CURRENTS.—A mathematical and graphical treatment of the principles of periodic currents; theory of the simple phenomena in transmission lines and transformers. II; (4).

Assistant Professor Paine, Assistant Professor Bryant, Mr. James, Mr. Hake

Prerequisites Electrical Engineering 3.

6. Alternating Currents.—(For mechanical engineers.) *I*; (2). Professor Brooks

Prerequisite: Electrical Engineering 3 or 16.

9. Lighting.—Electric lamps and other illuminants, and their effective use; interior wiring; methods of electrical distribution. (For architects.) II; (1). Professor Brooks

Prerequisite: Junior standing.

13. Seminar.—Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. *I*, *II*; (1).

Professor Berg, Assistant Professor Paine

Prerequisite: Junior standing.

14. ALTERNATING CURRENTS.—Alternating-current transformers and generators. *I*; (4).

Assistant Professor Paine, Assistant Professor Bryant, Mr. James, Mr. Hake

Prerequisite: Electrical Engineering 5.

16. DYNAMO-ELECTRIC MACHINERY.—Direct-current generators; motors; distribution circuits; storage batteries. Laboratory practice. (For mechanical engineers.) II; (4).

Professor Brooks, Assistant Professor Waldo, Mr. James, Mr. Hake, Mr. Loring

Prerequisite: Physics 1, 3; Mathematics 9.

17. ADVANCED ALTERNATING CURRENTS.—Synchronous, induction, and commutator alternating current motors; rotary converters; distributed inductance and capacity; transient phenomena. II: (4).

Professor Berg, Assistant Professor Paine, Assistant Professor Bryant, Mr. James, Mr. Hake

Prerequisite: Electrical Engineering 14, 24.

20. ELECTRICAL ENGINEERING LABORATORY.—The construction of special apparatus or other work approved by the department. (Elective for juniors and seniors.) *I, II;* (1 to 3.)

Assistant Professor BRYANT, Mr. WILLSON

22. ELECTRICAL ENGINEERING LABORATORY.—Direct current laboratory accompanying Electrical Engineering 3. I; (2).

Mr. Willson, Mr. Hake, Mr. James, Mr. Loring

Prerequisite: Registration in Electrical Engineering 3.

23. ELECTRICAL ENGINEERING LABORATORY.—Determination of the flux and E. M. F. waves of alternators. Alternating current circuits, instruments. II; (2).

Mr. James, Mr. Fisk, Mr. Hake, Mr. Loring

Prerequisite: Electrical Engineering 3, 22; registration in Electrical Engineering 5.

24. ELECTRICAL ENGINEERING LABORATORY.—Advanced direct and alternating current testing. I; (2).

Assistant Professor WALDO, Mr. WILLSON, Mr. FISK

Prerequisite: Electrical Engineering 23; registration in Electrical Engineering 14.

27. ELECTRICAL ENGINEERING LABORATORY.—Advanced alternating current testing. II; (2).

Assistant Professor BRYANT, Mr. WILLSON, Mr. FISK

Prerequisite: Electrical Engineering 24; registration in Electrical Engineering 17.

28. ELECTRICAL ENGINEERING LABORATORY.—Testing of dynamos and motors. 1; (1). Mr. Loring

Prerequisite: Electrical Engineering 1.

29. ELECTRICAL ENGINEERING LABORATORY.—Alternating current operation and testing. (For students in mechanical engineering.) II; (2). Mr. WILLSON

Prerequisite: Electrical Engineering 6.

32. ELECTRICAL DESIGN.—Calculation and design of electromagnets and of dynamos, direct and alternating, and of transformers. *I*; (2). Assistant Professor Waldo, Mr. Fisk

Prerequisite: Electrical Engineering 5; registration in Electrical Engineering 14.

34. ELECTRICAL DESIGN.—Calculation of induction motors and converters. Problems in power plant design. II; (3).

Assistant Professor WALDO, Mr. FISK

Prerequisite: Electrical Engineering 14.

35. Thesis.—First semester, preliminary reading and investigation; second semester, completion. Subjects must be chosen and approved before the first Monday in November. II; (3).

## COURSES FOR GRADUATES

Entrance upon graduate work in electrical engineering presupposes the full undergraduate course in that subject.

IOI. ADVANCED COURSE IN ALTERNATING CURRENTS.—The theory of Transient Phenomena; polyphase circuits; alternating current measuring apparatus. Twice a week; I, II.

Professors BERG and BROOKS

- 102. THE GENERATION, TRANSMISSION, AND UTILIZATION OF ELECTRICAL ENERGY.—Dynamo-electric machinery; light and power plants; switchboards and transmission lines. Twice a week; I, II.

  Professor Berg, Assistant Professor Paine
- 103. ELECTRICAL DESIGN.—The development of plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. Twice a week: II.

Professor Berg, Assistant Professor Waldo
104. Telegraphy and Telephony.—Professor Brooks, Assistant

104. TELEGRAPHY AND TELEPHONY.—Professor Brooks, Assistant Professor Paine

105. ELECTRICAL ENGINEERING RESEARCH.—An experimental investigation of some electrical phenomena, or tests of some electrical machine, or of a plant of such machines. Twice a week; I, II.

Professor Berg, Assistant Professor BRYANT

106. ILLUMINATION.—

Professor Brooks, Assistant Professor Bryant 107. High Tension Investigations Covering Work on Dielectrics, Corona, etc.—

Professor Berg, Assistant Professor Bryant
108. Central Station Economics.— Professor Berg

## ENGINEERING

(See Architecture, Civil Engineering, Drawing, Electrical Engineering, Mechanical Engineering, Mechanics, Mining Engineering, Municipal and Sanitary Engineering, Physics, Railway Civil Engineering, Railway Electrical Engineering, and Railway Mechanical Engineering.)

# THE ENGLISH LANGUAGE AND LITERATURE (Including Rhetoric)

RAYMOND MACDONALD ALDEN, Ph.D., Professor and Chairman DANIEL KILHAM DODGE, Ph.D., Professor THOMAS ARKLE CLARK, B.L., Professor STUART PRATT SHERMAN, Ph.D., Professor EDWARD FULTON, Ph.D., Associate Professor EDWARD CHAUNCEY BALDWIN, Ph.D., Assistant Professor HARRY GILBERT PAUL, Ph.D., Assistant Professor FRANKLIN WILLIAM SCOTT. A.M., Assistant Professor, Secretary HARRIE STUART VEDDER JONES, Ph.D., Assistant Professor THACHER HOWLAND GUILD, A.M., Associate JACOB ZEITLIN, Ph.D., Associate MARTHA JACKSON KYLE, A.M., Instructor HERBERT LE SOURD CREEK, Ph.D., Instructor CLARENCE VALENTINE BOYER, Ph.D., Instructor ARTHUR JERROLD TIEJE, Ph.D., Instructor JOHN CLARK JORDAN, A.M., Instructor VICTOR ALVIN KETCHAM, A.B., LL.B., Instructor LAWRENCE GILPIN PAINTER, Ph.B., LL.B., Instructor SADA ANNIS HARBARGER, A.M., Assistant VIDA LUCILE COLLINS, A.M., Assistant MARION CHARLOTTE LANDEE. Assistant RUTH KELSO, A.M., Assistant ALTA GWINN, A.M., Assistant WALTER A. BUCHEN, A.B., Assistant FRANK ERNEST HILL, A.B., Assistant MELVIN ARTHUR HOLLINSHEAD, A.B., Assistant JOSEPH ALLAN NEVINS, A.B., Assistant LEW R SARETT, A.B., Assistant EMERSON GRANT SUTCLIFFE, A.B., Assistant PAUL JAY BATKIN, A.B., Assistant THOMAS GREGORY GOODWIN, A.B., Assistant

## Major

A student making English a major must take 24 hours in English in addition to Rhetoric 1 and the first semester of English 1 or 10. Of these 24 hours, at least 12 must be in English literature, and at least 3 in composition. Of the total 24 hours, at least 6 must be taken in advanced courses.

## Honors

Candidates for honors in English must offer:

- 1. Work in English amounting to 24 hours in addition to Rhetoric 1 and the first semester of English 1 or 10.
- 2. At least 6 hours in advanced courses, which may be in either English literature or English composition.
- 3. A minimum of 15 hours in English literature in addition to the first semester of English 10, and a minimum of 6 hours in English composition in addition to Rhetoric 1.
- 4. Work aggregating 24 hours in two minor subjects, which must be in two foreign languages or in one foreign language and either history or philosophy. French 1 and German 1 and 3 may not be counted toward the fulfillment of the minor requirements.

## A. LITERATURE AND LANGUAGE

#### **ELEMENTARY COURSES**

I. Survey of English Literature.—(Credit is not given for either semester separately, nor for the course in addition to course 10 or course 20. Only one semesters' work is credited toward a major in English. Seniors in the College of Literature and Arts may receive but half credit.) I, II; (4).

Professor Sherman, Assistant Professor Baldwin, Dr. Boyer, Dr. Creek, Miss Kyle, Mr. Jordan, Mr. Painter, Dr. Tieje Prerequisite: A year's college work.

2. Introductory Course in Literature of the Nineteenth Century.—(This course is offered only for those who have received credit for English I as a one-semester course.) I; (4).

Dr. Tieje

10. Introduction to Literature.—A (First semester), The Forms of Prose Literature; B (Second Semester), The Forms of Poetry. (This course is intended only for those who expect to include a considerable amount of literature, in English or some other

language, in their curriculum. Credit is not given for the course in addition to course I or course 20. Only one semester's work is credited toward a major in English. Seniors in the College of Literature and Arts may receive but half credit. Credit is not given for the first semester separately.) I. II: (3).

Professor Alden, Assistant Professor Paul, Miss Kyle

Prerequisite: The minimum entrance requirements in English.

16. AMERICAN LITERATURE—(Credit is not given for either semester separately.) I, II; (2). Assistant Professor Paul Prerequisite: English I or Io.

17. THE ENGLISH LANGUAGE.—Some account of its history, with special reference to the characteristics and usage of modern English. *I*; (3). Associate Professor Fulton

Prerequisite: Rhetoric 1.

20. The Chief English Writers.—(This course is offered only for those whose program admits of but one semester's work in English, and who therefore may not register for course I. It is not accepted, like course I, as a prerequisite for more advanced courses. Credit is not given for the course in addition to course I or course Io. Seniors in the College of Literature and Arts may receive but half credit.) I or II; (4).

Professor Alden, Professor Dodge, Dr. Boyer, Dr. Tieje, Mr. Buchen

Prerequisite: A year's college work.

23. Introduction to Shakespeare.—I or II; (3).

Professor Sherman, Mr. Guild

Prerequisite: English 1 or 10.

## INTERMEDIATE COURSES

Prerequisite: Eleven hours of English literature, or eight hours of English literature and eight hours of a foreign language.

7. CHAUCER.—I; (3). Assistant Professor Jones

19. LITERARY STUDY OF THE BIBLE.—Hebrew literature as an expression of the life of the race that produced it; the debt, both ethical and artistic, of modern life to ancient Hebrew thought. (Either semester may be taken separately.) I, II; (3).

Assistant Professor BALDWIN

24. English Literature of the Victorian Period.—II; (4).
Miss Kyle

- 29. ENGLISH LITERATURE FROM 1557 TO 1688, EXCLUSIVE OF THE DRAMA.—I; (3). Assistant Professor Baldwin
  - 31. English Literature from 1688 to 1789.—II; (3).

Assistant Professor PAUL

- 32. THE GREATER ENGLISH CRITICS OF THE 19TH CENTURY.—II;
  (3). Associate Professor Fulton
  - 33. English Literature from 1789 to 1837.—I; (4).

Dr. ZEITLIN

## ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

Prerequisite: Sixteen hours of English literature. Juniors and seniors, however, who have had at least eleven hours of English literature, and have taken advanced work in either a foreign language or in history or have had a year's work in philosophy, may elect any of these courses.

3. The Poetry of Milton.—Origins, forms, artistic and ethical values; Milton's place in English literary history. II; (3).

Assistant Professor BALDWIN

- 4. English Versification.—Theory of English rhythm and metre; history of the development of the forms of English verse. *I*; (3). Professor Alden
- SHAKESPEARE AND HIS PREDECESSORS.—(The second semester, devoted to Shakespeare, may be taken without the first.) I, II; (3).
   Professor Dodge
- 8. OLD ENGLISH (ANGLO-SAXON). Grammar; prose; short poems; Beowulf. I, II; (3). Professor Dodge
- [14. STUDIES IN THE HISTORY OF JOURNALISM.—Not given in 1912-13.

  Assistant Professor Scott]
- 15. Teachers' Course.—Methods of teaching English literature and composition in the high school. (This course, while open to graduate students, is not credited toward advanced degrees. Either semester may be taken separately.) I, II; (2).

Assistant Professor Paul

18. Modern English Grammar.—The structure of the sentence and its analysis into the parts of speech; the common grammatical categories; the peculiarities of English syntax. II; (3).

Dr. Zeitlin

27. LITERATURE OF THE FOURTEENTH CENTURY.—That literature of the period which best reflects the political and religious life of the time; Chaucer; the so-called revival of alliterative poetry. II; (3).

Assistant Professor Jones

35a. English Drama from 1600 to 1700.—Chapman, Jonson, Dekker, Marston, Heywood, Middleton, Beaumont and Fletcher, Webster, Ford, Massinger, Shirley, Dryden, Wycherly, Otway, Lee, Congreve, Vanbrugh. *I*; (3). Professor Sherman

[35b. English Drama from 1700 to 1900.—Omitted in 1912-13.]

39. Introduction to the Literature of the Middle Ages.—European culture from the fourth century; the relation of English and continental literature to the fourteenth century. I; (3).

Dr. CREEK

#### COURSES FOR GRADUATES

Students who enter upon graduate work with English as their major subject are expected to give evidence of ability to write well, and of a considerable acquaintance with English literature. Their progress in the field of English will depend, however, in great measure upon the breadth and thoroughness of their training as undergraduates in the following closely allied subjects: the Classics, the modern languages, history, and philosophy.

A reading knowledge of French and German is from the beginning highly desirable; after the first year it is indispensable.

The Degree of Master of Arts in English. In addition to complying with the general rules of the Graduate School, candidates for the degree of Master of Arts in English must comply with the following rules of the Department of English: (1) they must choose a portion of their work from the group of courses described as "for graduates"; (2) must offer an elementary course in Anglo-Saxon; and (3) must take, besides the regular semester examinations in all their courses, a general examination, oral or written as the department may prescribe, which shall be a final test of the candidate's fitness and ability.

The Degree of Doctor of Philosophy in English. Candidates for the degree of Doctor of Philosophy in English may expect to be examined on the entire field of the English language and literature. They are urged, furthermore, to acquaint themselves as fully as possible with the history of the philosophy of the period in which their main interest lies, and with the foreign language and literature most closely related to English in that period.

IOI. RESEARCH IN SPECIAL PERIODS.—Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for

study in the language or literature of the periods mentioned below. A. Anglo-Saxon language and literature. Professor Dodge, Dr. Zeitlin Thirteenth and Fourteenth Centuries. Assistant Professor Iones C. Sixteenth Century. Professor Alden, Professor Dodge D. Seventeenth Century. Professor Alden, Assistant Professor Baldwin F. Eighteenth Century. Professor SHERMAN, Assistant Professor Paul F. Nineteenth Century. Professor SHERMAN, Associate Professor Fulton 102. SEMINAR IN COMPARATIVE LITERATURE.—Subject: Tragedy in the Nineteenth Century. Twice a week: I. Professor ALDEN 105. SHAKESPEARE'S SONNETS.—The text and the problems involved in its interpretation. Twice a week: II. Professor ALDEN 106. ENGLISH LITERARY CRITICISM FROM THE AGE OF SIDNEY TO THE AGE OF COLERIDGE.—Twice a week; I, II. Associate Professor Fulton 109. GERMAN AND SCANDINAVIAN INFLUENCES ON ENGLISH LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES .-Twice a week: I. Professor Dodge 110. OLD ENGLISH (ANGLO-SAXON) POETRY.—Twice a week; Professor Donge I. II. 113. HISTORICAL PROSE SYNTAX.—The forces, native and foreign, at work in the development of English prose style as far as it relates to sentence structure. During 1912-13 the emphasis is placed on Tudor prose. Twice a week; I, II. Dr. Zeitlin 126. English Ballads and Metrical Romances.—Twice a Assistant Professor Iones week; I, II. [127. MIDDLE ENGLISH.—Critical reading of Middle English texts. Twice a week; I, II. Not given in 1912-13. Assistant Professor Jones 136. THE TRANSITION FROM THE SEVENTEENTH TO THE EIGHTEENTH CENTURY; THE RISE OF CLASSICISM.—Twice a week; I, II. Assistant Professor Paul 137. NINETEENTH CENTURY PROSE WRITERS.—Twice a week; Professor SHERMAN I, II.

[138. THE ROMANTIC MOVEMENT IN ENGLAND.—Twice a week; I, II. Not given in 1912-13. Professor SHERMAN]

## B. RHETORIC

## I. COMPOSITION

## ELEMENTARY COURSES

I. \*RHETORIC AND THEMES.—Required for students in the Colleges of Literature and Arts, Science, Engineering, and Agriculture. I, II; (3).

Assistant Professor Scott (in charge), Associate Professor Fulton, Assistant Professor Jones, Mr. Guild, Dr. Zeitlin, Dr. Boyer, Dr. Creek, Mr. Jordan, Mr. Painter, Dr. Tieje, Mr. Warnock, Mr. Buchen, Miss Harbarger, Miss Kelso, Miss Collins, Miss Gwinn, Mr. Nevins, Mr. Sutcliffe, Mr. Goodwin, Mr. Hill, Mr. Sarett, Mr. Batkin, Mr. Hollinshead

Prerequisite: The minimum entrance requirements in English.

For the benefit of those whose course is irregular, a limited number of sections in each semester take up the work of the other semester. The course is not counted toward a major in English.

## INTERMEDIATE COURSES

- 2. Argumentation.—General argumentative writing; the purpose of argument; the tests of evidence and reasoning. Textbook; class discussions; assigned work. I; (3). Mr. Ketcham Prerequisite: Rhetoric 1.
- 3. English Composition.—Short themes, with an occasional long theme. I or II; (3). Professor Clark, Mr. Guild, Miss Kyle Prerequisite: Rhetoric 1.
- 6. Advanced Composition: Narration.—Practice in short story writing. (Intended for those who have some aptitude for literary work.) *I*; (3). Mr. Guild

Prerequisite: Two years of college work and the consent of the instructor.

10. Business Writing.—Business correspondence, with practice in incidental writing, summaries, etc. (Open only to those taking a business course, except by special permission. Not counted toward a major in English.) *I or II;* (2). Professor CLARK

Prerequisite: Rhetoric 1.

<sup>\*</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 81.

12. Newspaper Writing.—News writing; interviewing and reporting; news correspondence; news form; news value; typography; proof reading. *I, II;* (2). Assistant Professor Scott

Prerequisite: Rhetoric 1.

19. Agricultural News Writing.—Class exercises; lectures; assignments in gathering and preparing material for agricultural papers. II; (3).

Assistant Professor Scott

Prerequisite: Junior or senior standing in the College of Agri-

culture. Rhetoric 1.

## ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

15. Advanced Newspaper Writing.—The larger problems in reporting; application of principles of history, economics, and political science to current public events; editing; editorial writing. *I, II;* (3).

Assistant Professor Scott

Prerequisite: Rhetoric 12 or the consent of the instructor.

17. Advanced Composition.—Practice writing, with special emphasis on the study of structure; criticism of current periodical literature; the developing of material for reports, magazine articles, etc. II; (3).

Mr. Guild

Prerequisite: Two years of college work and the consent of

the instructor.

## II. Public Speaking

## ELEMENTARY COURSE

7. Public Speaking.—Reading aloud, with occasional memory work. Lectures; class exercises; individual instruction. *I, II;* (2). Mr. Ketcham, Mr. Sarett, Miss Landee

Prerequisite: Rhetoric 1.

#### INTERMEDIATE COURSES

4. The Art of Debate.—Brief writing and the extemporaneous presentation of argument in formal debate. (Contestants in the intercollegiate debates, when registered for this course, are excused from the class work during their period of practice.) II; (3).

Mr. KETCHAM

Prerequisite: Rhetoric 2, 7.

5. The Forms of Public Address.—Extempore speaking; formal public speaking; discussions of current events; parliamentary procedure. *I, II;* (2). Mr. Ketcham

8. Interpretative Reading.—II; (3). Mr. Guild

Prerequisite: Rhetoric I. 7.

[O. DRAMATIC READING.—Not given in 1012-13. Mr. GUILD]

## ENTOMOLOGY

(See also BOTANY, PHYSIOLOGY, and ZOOLOGY.)

STEPHEN ALFRED FORBES, Ph.D., LL.D., Professor JUSTUS WATSON FOLSOM, D.Sc., Assistant Professor ALEXANDER DYER MACGILLIVRAY, Ph.D., Assistant Professor HUGH GLASGOW, A.B., Assistant ALVAH PETERSON, B.S., Assistant

Entomology as taught at the University is distinctly differentiated from the work in zoology. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially 2, 3, 4, 7, 8, 14, and 108. Those preparing for the teaching of zoology should take either 2 and 4, or 3 and 4, or all three of these courses.

I. ELEMENTARY ENTOMOLOGY.—Lectures: laboratory; field work. (Open to all students.) I, II; (2). Assistant Professor Folsom

2. GENERAL ENTOMOLOGY.—Field entomology; morphological and physiological entomology; the collection and preservation of specimens; laboratory studies of typical insects; the recognition of adaptive structures and their utilities. (This course and course 3 form a year's work, covering the whole field. Either may be taken independently of the other.) I; (5).

Assistant Professors Folsom and MacGillivray

Prerequisite: Entomology 1, or 4, or equivalent.

3. GENERAL ENTOMOLOGY.—The classification and determination of insects; the study of life histories in the insectary and by field observation; the collection of information with respect to the ecological relations of insects. II; (5). Assistant Professor Folsom

Prerequisite: Entomology I or 4, or equivalent.

4. Introduction to Economic Entomology.—Lectures: field work; laboratory. Section A for students of agriculture. I; first half; (21/2). Section B, for students of horticulture. II; second half; (21/2). Assistant Professor Folsom

5. Introduction to Research.—Preparation for thesis work. Library, language, manuscript, and advanced laboratory work on assigned topics. (A three-hour course for one semester is required as a preparation for entomological thesis work.) I or II; (3 to 5).

Professor Forbes, Assistant Professors Folsom and MacGillivray Prerequisite: Entomology 2, 3.

6. Thesis Investigation.—Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor, during the senior year. I, II; (5).

Professor Forbes, Assistant Professors Folsom and MacGillivray

7. ELEMENTARY SYSTEMATIC ENTOMOLOGY.—The external anatomy of insects; the terminology of the parts; identification of specimens representing as many as possible of the major groups. *I or II*; (5). Assistant Professor MacGillivray

Prerequisite: Entomology 2.

8. Advanced Economic Entomology.—Assigned problems. Field laboratory, insectary, library, and manuscript work, with practice in the special operations of economic entomology. (Intended primarily to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture 1, 2, and 3 should also be taken as a part of this preparation.) I, II; (3).

Professor Forbes, Assistant Professor Folsom

Prerequisite: Entomology 4, 2, 3.

9. ADVANCED SYSTEMATIC ENTOMOLOGY.—The identification of the characters upon which genera and species are based. *I or II;* (5).

Assistant Professor MacGullyray

Prerequisite: Entomology 2, 7.

10. Taxonomy of Immature Insects.—I; (5).

Assistant Professor MacGILLIVRAY

Prerequisite: Entomology 1 or 4, 2, 7.

II. CLASSIFICATION OF THE COCCIDAE.—Methods of preparing scale insects for study, the identification of genera and species, and discussion of their morphology, metamorphosis, and phylogeny.

II; (5).

Assistant Professor MacGillivray

Prerequisite: Entomology I or 4, 2, 7.

12. Seminar.—Reports and discussion upon assigned topics; presentation and discussion of contents of recent entomological publications, and of results of personal research. *I*, *II*; (1).

Prerequisite: One year of entomological work.

13. MEDICAL ENTOMOLOGY.—Insects and the transmission of dis-

ease; methods of controlling such insects and preventing the disease due to them. (Primarily for advanced students preparing for medicine.) I or II; (3).

Prerequisite: Zoology 3, or its equivalent in microscopical technique.

14. ADVANCED ECONOMIC ENTOMOLOGY.—Personal work under direction on assigned problems in economic entomology, intended to prepare advanced students for immediate service as state and government entomologists. Advantage will be taken of the operations and practical problems of the State Entomologist's office so far as available. I or II, and six weeks of summer vacation.

Prerequisite: Courses in elementary and advanced economic entomology, and in systematic entomology.

## COURSES FOR GRADUATES

The prerequisite for graduate work in entomology is one year's work in biological courses, including an equivalent of either Zoology I or Entomology I or 4. Entrance upon major work in entomology requires the equivalent of Entomology 2 and 3.

Graduate students who have had at least one year of college work in biological courses may take for graduate credit any of the preceding courses except 1, 4, and 6. The following courses are open to graduate students only:

102. RESEARCH IN THE MORPHOLOGY AND EMBRYOLOGY OF INSECTS.

Assistant Professor Folsom

103. RESEARCH IN FAUNISTIC AND ECOLOGICAL ENTOMOLOGY.

Professor Forbes

108. RESEARCH IN ECONOMIC ENTOMOLOGY. Professor Forbes

109. RESEARCH IN SYSTEMATIC ENTOMOLOGY.

Assistant Professor MacGillivray

## THE FINE ARTS

(See ART AND DESIGN and MUSIC. Attention is called also to the courses in esthetics offered by the departments of philosophy, education, architecture, and household science.)

## FLORICULTURE

(See HORTICULTURE.)

## FRENCH

(See ROMANCE LANGUAGES AND LITERATURE.)

## **GEOLOGY**

(Including Mineralogy, Paleontology, and Physical Geography.)

CHARLES WESLEY ROLFE, M.S., Professor
WILLIAM SHIRLEY BAYLEY, Ph.D., Associate Professor
THOMAS EDMUND SAVAGE, Ph.D., Assistant Professor
JOHN LYON RICH, Ph.D., Instructor
WALTER ELMER EKBLAW, A.B., Assistant
DAVID GROSH THOMPSON, A.B., Assistant
FRANK LESLIE FLEENER, A.B., Assistant
GEORGE WILLIAM HEITKAMP, A.B., Assistant

This department occupies a suite of twenty-seven rooms on the first and second floors of the Natural History building. Its laboratories and lecture rooms are equipped with the apparatus and illustrative material necessary to carry on the work scheduled below. The equipment for the study of crystallography, mineralogy, economic geology, paleontology, and stratigraphy is especially good. The department is also supplied with maps, charts, projection apparatus, and field and laboratory instruments for surveying and mapping.

The collections in mineralogy, petrography, and paleontology are large and well selected. The last is rich in the fossil forms which occur in the Mississippi Valley and the library is well supplied with the literature essential to their study.

The offices and laboratories of the State Geological Survey adjoin those of the department and a portion of the instructors are also engaged in work for the Survey, while others are coöperating with the United States Geological Survey, thus giving advanced students the advantages which are to be gained from close contact with practical work.

To students who are especially interested in geology the department offers three lines of work, and recommends that the courses be taken in the order indicated below.

MINERALOGY, PETROGRAPHY, ECONOMIC GEOLOGY.—For those who care particularly for minerals and rocks, their identification, origin, and transformation; the origin, characteristics, and classification of ores and the economic qualities of non-metallic minerals, it is recommended that the following courses be taken in the order given: Geology 19, 1, 1a, 5, 5a, 6, 7, 16, 15, 2.

STRATIGRAPHY, PALEONTOLOGY.—If the student cares more for the history of rocks, the order in which they were laid down, the conditions which gave them their peculiarities, and the evolution of living forms as shown by the succession of fossils, the following order of courses is suggested: 19, 1, 1a, 9, 16, 5, 18, 20, 22, 15, 4.

Physiographic Geology, Physical Geography.—If his interest lies more in the earth's surface, the origin of its topographic forms, the agencies which are transforming them, and the influence of these upon the welfare of plants, animals, and man, the following courses are advised, in order: 19, 23, 14, 10, 5, 1a, 11, 8, 20, 17, 24, 4. These courses will be of special interest to prospective teachers of physiography.

The attention of students who can devote but one or two semesters to the subject is directed to the following courses: For engineers, 3, 5, 13; for agriculturists, 12, 14, 8, 11; for students in commerce, 3, 14, 8; for students in literature and science, 3, 1, 1a, 10, 14, 8, 11, 22.

## COURSES FOR UNDERGRADUATES

I. DYNAMIC AND STRUCTURAL GEOLOGY.—The agents and processes involved in the development of the earth's present features. Lectures; laboratory. I; (5). Professor Rolfe, Mr. Fleener Prerequisite: Chemistry I or an equivalent.

1a. HISTORICAL GEOLOGY.—The evolution of the earth and its life. Lectures; laboratory work, consisting largely of a study of a few of the more characteristic fossils from the various horizons. (Continuing course 1 and introducing courses 9 and 16.) II; (5).

Assistant Professor Savage, Mr. Thompson

Prerequisite: Geology 1, 3, or 23.

2. Economic Geology.—The origin and manner of occurrence of minerals and rocks of economic importance, especially those found in North America. Lectures; laboratory. *II*; (3-5).

Associate Professor BAYLEY

Prerequisite: Geology 5; 1 and 1a, or 3.

- 3. General Geology.—Mineralogy; dynamic, historic, and economic geology; minerals; rocks; contour maps; fossils. Recitations; laboratory. (For students who wish to devote but one semester to geology.) I or II; (5). Daily, with occasional trips on Saturday.

  Professor Rolfe, Mr. Fleener
  - 4. THESIS COURSE.—Field or laboratory problems; complete re-

ports under the direction of an instructor; maps, sections, and figures based on observations. II; (5).

5. MINERALOGY.—Petrography and economic geology; the most common ores and minerals of scientific importance; crystallography; the characteristics of about 125 of the most important minerals; blow pipe analysis. Lectures; laboratory.  $I_{\mathcal{F}}$  (5).

Associate Professor Bayley, Mr. Ekblaw

Prerequisite: Chemistry 1, 2, 3.

5a. Determinative Mineralogy.—Laboratory: the determination of minerals. Lectures: the characteristics, origin, and transformation of minerals. *II*; (3).

Associate Professor Bayley, Mr. Ekblaw

Prerequisite: Geology 5.

6. Physical and Optical Mineralogy.—Petrography; physical and optical properties of minerals; the practical use of polarized light in identifying the rock-forming materials. II; (3).

Associate Professor BAYLEY

Prerequisite: Geology 5.

7. Petrography.—Rocks; their types; origin; classification; the types studied with hand specimen and thin section. Lectures; laboratory. 1; (3).

Associate Professor Bayley

8. Geography of Europe.—The continent of Europe; physiographic features, climate, and natural resources; the influence of physical conditions on present and historical development. II; (3).

Dr. Rich, Mr. Heitkamp

Prerequisite: Geology 23, or 1 or 3 with 14.

9. PALEONTOLOGY.—Paleozoic invertebrate fossils; their classification and relationships; identification of the fossils; the literature of the subject. Lectures; laboratory. *I*; (5).

Assistant Professor Savage, Mr. Thompson

Prerequisite: Geology 1a; recommended: I year of botany or zoology.

IO. REGIONAL GEOGRAPHY.—The continents of South America, Africa, Australia, Asia, and Europe; physiographic features, drainage, climate, and resources; the people and their characteristics; the control exerted by natural geographic factors over cultural and material development. II; (3).

Dr. Rich, Mr. Heitkamp

Prerequisite: Geology 23 or 1 or 3.

11. Geography of North America.—The continent of North America; physiography, climate, resources, peoples, and economic

geography; the bearings of physiographic and climatic factors on present and past development. I; (3). Dr. Rich, Mr. Heitkamp Prerequisite: Geology 23, or 1 or 3 with 14.

12. Geology of Soils.—The origin of the various classes of soils; mineral compositions; physical characteristics; transformations. (Particularly valuable to students of agriculture and all those who are especially interested in plant growth.) II; (5).

Professor Rolfe, Mr. Fleener

Prerequisite: Chemistry I or an equivalent.

13. Engineering Geology.—(Planned especially to meet the needs of engineering students; open only to students in engineering and ceramics.) Lectures; laboratory. II; (5).

Associate Professor Bayley, Mr. Ekblaw

14. Meteorology.—The heating and cooling, pressure, circulation, and moisture of the atmosphere; storms, and storm and weather forecasting; rainfall, climate. (Course 14 should be taken by all those who intend to do more than the most elementary work in geography, and, with course 8, should be taken with Economics 26 by students of commerce.)

Dr. Rich, Mr. Heitkamp

15. STRUCTURAL GEOLOGY.—The arrangement of the rocks which form the earth's crust and their distribution on its surface; mountains: faults: folds: other diastrophic phenomena. *I*: (5).

Associate Professor BAYLEY

Prerequisite: Geology 1a.

16. Stratigraphy.—The methods and criteria employed in the correlation of strata; the distribution of the successive geologic formations; the characteristic invertebrate faunas contained. Lectures; laboratory. II; (5). Assistant Professor Savage, Mr. Thompson

Prerequisite: Geology 9.

17. CONTINENTAL EVOLUTION.—The development of continents; the distribution of the strata of the successive geological systems; the character and variations of the sediments in each period with their faunas; the distribution of lands and seas, and their relative altitude in geologic ages.  $I_{\mathcal{F}}(5)$ . Assistant Professor Savage

Prerequisite: Geology 12 or 11.

18. MESOZOIC AND TERTIARY PALEONTOLOGY.—The mesozoic and tertiary invertebrate fossil forms; the evolution of vertebrates during the same periods. (For students specializing in botany or zoology.) II; (5).

Assistant Professor Savage

Prerequisite: Geology 1a, 9; or 10 credits in botany or zoology.

- 19. FIELD GEOLOGY—INTRODUCTORY COURSE.—Field trip of two weeks, in September, 1912, introductory to the courses in general geology and physiography. Including points in Indiana, Ohio, and the Wyandotte or Mammoth Cave, to illustrate the marked difference between the physiographic features of youthful and mature topography and of glaciated and non-glaciated areas; collection of fossils from the different rock exposures; their use in determining the age of strata. (Expenses about \$35.00.) Credit given on completion of a semester course in geology and on submission of written report on the observations and collections made during the trip.

  I; (2).

  Assistant Professor Savage
- 20. FIELD GEOLOGY.—The field determination of physical features and rock formations, with mapping and description, of a selected area. (A short field course.)

  Assistant Professor Savage
- 23. Physiography.—The earth's surface: its salient features, their origin, modification, and interrelationships; agencies and processes of change; meteorology; oceanography. (A general introductory course in physiography; should precede all further work in geography or physiography.) I; (5). Dr. Rich, Mr. Heitkamp
- 21. Geology of Coal.—The origin of coal; coal sampling; the stratigraphy of the coal measure deposits of North America, with special reference to the Illinois or Eastern Interior basin. I; (2).

Assistant Professor SAVAGE

Prerequisite: Geology 13 or an equivalent.

22. Organic Evolution.—The evolution of plant and animal forms as indicated by the fossil record. II; (3).

Assistant Professor Savage

Prerequisite: Geology 1a, or one semester of zoology or botany. 24. Geomorphology.—Earth features and the influence of cli-

matic conditions, character and attitude of the rocks, and diastrophic movements on surface forms. (An introduction to the literature of physiography; should be taken by all who intend to teach or to specialize in geography or geology.) II, (3). Dr. Rich

Prerequisite: Geology I or 3 or 23 and Ia.

#### COURSES FOR GRADUATES

Graduate students who are doing their principal work in other departments before taking work for graduate credit in geology must have had the equivalent of 10 sequential university credits in geology, 10 in chemistry, and 8 in physics.

Students who are candidates for an advanced degree in geology

must have had the equivalent of 20 sequential university credits in geology, 10 in chemistry, 8 in physics, and, if the work is to be along the lines of stratigraphy or paleontology, 10 in zoology or botany.

101. Advanced Crystallography.—The methods of measuring, projecting, and calculating crystal forms; the physical properties of crystallized bodies; indices of refraction; electrical properties; morphotropism. Three to five times a week; I or II.

Associate Professor BAYLEY

102. Petrography.—The igneous rocks; identification of types; classification; relationships. Lectures; laboratory. Two hours, five times a week; I.

Associate Professor Bayley

103. Petrography.—Schists and sedimentary rocks. Two hours, five times a week; I.

Associate Professor Bayley

- 105. INVERTEBRATE PALEONTOLOGY.—The literature and fossils of a special geological system; their geographic distribution; the geologic provinces; the origin and the routes of migration of the different faunas during the period. Largely individual work. Three to five times a week; I, II.

  Assistant Professor Savage
- 106. FIELD AND LABORATORY COURSE.—The geology and paleontology of a selected area in Illinois; report on the geology of the region, based on the data collected in the field. Three to five times a week; I, II.

  Assistant Professor Savage
- 107. Areal and Structural Geology.—Individual work on some area exhibiting important structural or economic features. Once a week.

  Associate Professor Bayley
- 124. Advanced Physiography.—Individual work on field problems; advanced literature of physiography and geomorphology. One to three times a week; I, II.

  Dr. Rich

## GERMANIC LANGUAGES AND LITERATURE

(Including SCANDINAVIAN)

JULIUS GOEBEL, Ph.D., Professor
OTTO EDUARD LESSING, Ph.D., Associate Professor
GEORGE HENRY MEYER, A.M., Assistant Professor
NEIL CONWELL BROOKS, Ph.D., Assistant Professor
GEORGE TOBIAS FLOM, Ph.D., Assistant Professor, Scandinavian
DAISY LUANA BLAISDELL, A.M., Instructor

CHARLES MARSHALL POOR, Ph.D., Instructor CHARLES ALLYN WILLIAMS, Ph.D., Instructor LEONARD BLOOMFIELD, Ph.D., Instructor ARMIN HAJMAN KOLLER, Ph.D., Instructor PHILIP STEPHAN BARTO, A.M., Assistant FELIX EMIL HELD, A.M., Assistant

## GERMAN

## Honors

Candidates for honors in German must offer:

- 1. A minor of at least 12 hours in some other language; if this be English it must be exclusive of English 1 and work in rhetoric; if it be French or Spanish it must be exclusive of the first year's work.
- 2. A minor of at least 12 hours in any one of the other humanities, provided that the courses chosen contribute in a reasonable degree to the student's knowledge of European civilization. In order to be sure that the work offered will be accepted as fulfilling this general purpose, students are urged to consult with the department in planning their work in their minor subjects.
- 3. A general knowledge of European history, such as is gained from History 1, or an equivalent course.
- 4. An acceptable thesis; it may be one written in connection with some course.

#### FIRST-YEAR COURSES

- ELEMENTARY COURSE.—Grammar and easy reading. I; (4).
   Assistant Professor Meyer, Assistant Professor Brooks, Miss BLAISDELL, Dr. Poor, Dr. WILLIAMS, Dr. BLOOMFIELD, Mr. BARTO, Mr. HELD
- 3. NARRATIVE AND DESCRIPTIVE PROSE.—Grammar and syntax; reading of easy texts; exercises in prose composition. II; (4).

Assistant Professor Meyer, Assistant Professor Brooks, Miss Blaisdell, Dr. Williams, Dr. Bloomfield, Dr. Koller, Mr. Barto, Mr. Held

Prerequisite: German 1, or one year of high school German.

Note.—Three sections of German 3 will be offered in the first semester.

## SECOND-YEAR COURSES

4. Descriptive and Historical Prose.—Selections from standard prose writers; sight reading; prose composition. I; (4).

Miss Blaisdell, Dr. Poor, Dr. Williams, Dr. Bloomfield, Dr. Koller, Mr. Barto, Mr. Held

Prerequisite: German I and 3, or two years of high school German.

Note.—Three sections of German 4 will be offered in the second semester.

5. Introduction to the Classics.—Schiller's Jungfrau von Orleans; Goethe's Hermann und Dorothea; or others of the classics. Prose composition. (Two sections of German 5 will be offered in the first semester.) II; (4).

MISS BLAISDELL, Dr. POOR, Dr. WILLIAMS, Dr. KOLLER, Dr. BLOOM-FIELD

Prerequisite: German 4, or three years of high school German.

6. Scientific Prose.—The rapid reading of works of a general scientific character. II; (4). Dr. Williams, Dr. Koller, Mr. Held Prerequisite: German 4.

## THIRD-YEAR COURSES

Not more than ten hours of these courses may be counted towards a major without the approval of the head of the department.

7. Modern Fiction.—(Intended primarily for students who take German 5 in the first semester; not open to those who have had any work more advanced than German 5.) Two sections. II; (3).

Miss Blaisdell, Dr. Poor

Prerequisite: German 5, or equivalent.

10. Introductory Goethe Course.—Reading of works illustrating different periods in Goethe's development: Götz von Berlichingen; Egmont; Iphigenie auf Tauris; selections from Dichtung und Wahrheit. II; (3).

Assistant Professor Meyer, Assistant Professor Brooks Prerequisite: German 14, or 24, or 16.

14. Introductory Schiller Course.—Reading of works illustrating different periods in Schiller's development: Lyrics and ballads; Kabale und Liebe; Braut von Messina. (Not open to freshmen.) I; (3).

Assistant Professor Brooks

Prerequisite: German 5 or its equivalent.

16. Elementary Prose Composition.—Two sections. I; (2). Miss Blaisdell, Dr. Poor, Dr. Williams

Prerequisite: German 5, or equivalent.

Note.—One section of German 16 is offered in the second semester.

17. Intermediate Prose Composition.—(Two sections.) II;
(3). Miss Blaisdell, Dr. Williams

Prerequisite: German 16.

24. Modern Drama.—Rapid reading of dramas by Grillparzer, Hebbel, Wildenbruch, and others. (Not open to freshmen.) *I;* (3).

Dr. Poor

Prerequisite: German 5 or its equivalent.

28. German Lyrics.—First semester: The chief lyric poets of the classical period. Second semester: The chief lyric poets of the nineteenth century. The form, development, and different types of the lyric. (Each semester may be taken separately, although students are not advised to take the second without the first. Not open to freshmen.) I, II; (2).

Assistant Professor Meyer

Prerequisite: For first semester, German 5 or equivalent; for second semester, German 14, or 16, or 24, or first semester of 28.

## PRIMARILY FOURTH-YEAR COURSES

8. Schiller.—The life of Schiller; Wallenstein and other selections. I; (3).

Associate Professor Lessing

Prerequisite: German 10, or 14, or 28.

[9a. Goethe's Faust.—The Faust legend and early Faust books and plays; the genesis of Goethe's Faust; reading of both parts. I, II; (2). Not given in 1912-13. Professor Goebel]

9b. Goethe and Schiller.—Interpretation of Goethe's poems. Goethe's Tasso; Schiller's Ueber naive und sentimentalische Dichtung. I, II; (2).

Professor Goebel

II. GERMAN LITERATURE AFTER THE REFORMATION.—Lectures; recitations; reports on assigned collateral reading. II; (3).

Associate Professor Lessing

Prerequisite: German 26.

25. Teacher's Course.—Discussion of methods; examination of text-books. (Open to seniors and special students who have 20 hours' credit in German.) II; (2). Assistant Professor Brooks

Prerequisite: First semester of German 29 or equivalent; completion of or registration in Education 1 or equivalent.

26. German Literature Before the Reformation.—Lectures; recitations; reports on assigned reading. I; (3).

Associate Professor LESSING

Prerequisite: German 10, or 24, or 28.

- 27. Lessing.—The life of Lessing; Nathan der Weise; Emilia Galotti, and other selections. II; (3). Associate Professor Lessing Prerequisite: German 8, or 10, or first semester of 9 or 29.
- 29. Advanced Prose Composition.—Themes on Germany and German life, based on suitable reading, discussed in German. I, II; (3).

  Dr. Koller

Prerequisite: German 17.

30. THESIS COURSE.—(Intended primarily for candidates for honors in German, but open to other seniors.) I, II; (1 or 2).

Professor Goebel, Associate Professor Lessing, Assistant Professor Meyer, Assistant Professor Brooks

31. MIDDLE HIGH GERMAN.—I; (2). Professor Goebel Prerequisite: Senior or graduate standing; at least three years of German.

Courses 9, 11, 29, and 31 are especially recommended to all candidates for graduate scholarships in German; these same courses, together with Course 25, are recommended to seniors who expect to teach German.

## COURSES FOR GRADUATES

Students desiring to take German as a major are expected to have finished successfully a four years' course of undergraduate work in German, corresponding to the four years' course in German at this University. They are expected to be familiar with the principal works of the writers of the classical and modern periods of German literature, to show a general knowledge of the history of German literature and to be able to follow lectures in the German language.

Of collateral subjects, a reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Ph.D. have some knowledge of Greek. All students are expected to have had a course in German History.

IOI. SEMINAR IN GERMANIC PHILOLOGY.—Schiller's Philosophic Poems. Training in original research; results of value may be published in the Journal of English and Germanic Philology. Once a week; I, II.

Professor GOEBEL

[103. Introduction to the Historical Study of the Germanic Languages.—History of German Philology; comparative grammar of the Old Germanic dialects. Lectures; discussions of special topics. Twice a week; II. Not given in 1912-13. Professor Goebel]

104. GOTHIC.—Grammar and literature. Twice a week; I.

Professor GOEBEL

105. OLD HIGH GERMAN.—Grammar and interpretation of the oldest literary documents. Three times a week; II.

Dr. BLOOMFIELD

- 109. GOETHE'S AND SCHILLER'S PHILOSOPHY.—Twice a week; I, II. Professor GOEBEL
- 110. EARLY GERMAN DRAMA.—German drama up to the Reformation; medieval religious drama; Shrovetide plays; beginnings of the humanistic drama. Twice a week; I. Assistant Professor Brooks
- II3. GERMAN LITERATURE OF THE FIFTEENTH AND SIXTEENTH CENTURIES.—Survey of the literature on the back-ground of the general history of the time; Luther and the reformation; mastersingers and folksong; the reformation drama; Hans Sachs; Brant; Fischart; the chap books, the English comedians. Twice a week; II.

  Assistant Professor BROOKS
- 115. HISTORY OF GERMAN LITERATURE FROM GOETHE'S DEATH TO THE PRESENT TIME.—Twice a week; I, II.

Associate Professor Lessing

- 116. Medieval German Literature with Reference to the Political, Religious, and Social History.—Research. Twice a week; I.

  Associate Professor Lessing
- [117. HISTORY OF GERMAN LITERATURE DURING THE EIGHTEENTH CENTURY.—I. Not given in 1912-13. Professor Goebel]
- [118. The German Drama Since Schiller.—Research. Twice a week; I, II. Not given in 1912-13. Associate Professor Lessing]
- [119. The German Novel.—Research. Twice a week; I, II. Not given in 1912-13. Associate Professor Lessing]
- 121a. The Nibelungenlied.—Lectures and interpretations. Twice a week; II. Professor Goebel
- [124. HISTORY OF THE DRAMA.—The beginnings of the drama and its development in the eighteenth century. Twice a week; I. Not given in 1912-13.

  Assistant Professor Meyer]

## SCANDINAVIAN

## UNDERGRADUATE COURSES, NOT OPEN TO FRESHMEN

[I. ELEMENTARY NORWEGIAN.—Grammar, reading, and introduction to the literature. I, II; (3). Not given in 1912-13.

Assistant Professor FLOM]

- 2. ELEMENTARY SWEDISH.—Grammar and reading of easy prose; Selma Lagerlöf's En Herrgardssägen, and Runeberg's Fanrik Stals Sägner. 1; (2).

  Assistant Professor Flom
- 3. IBSEN'S Brand AND Peer Gynt.—Advanced Norwegian. Interpretation of the two dramas; the language and style. Olsen's Brand. II; (2).

  Assistant Professor FLOM

Prerequisite: Course I or the equivalent.

[4. ESAIAS TEGNER.—Tegner's Frithjofs Saga; genesis, development, and influence. Lectures on Swedish romanticism and "The Gothic School." II; (2). Not given in 1912-13.

Assistant Professor FLowl

- [5. Henrik Ibsen.—Lectures and interpretation of selected works. Early influences; development of his view of life. II; (2). Not given in 1912-13.

  Assistant Professor Flom]
- 6. IBSEN'S SOCIAL DRAMAS.—Lectures; interpretation of four of the social dramas; Ibsen's technique. Archer's translation is used. II; (2).

  Assistant Professor FLOM

Prerequisite: Junior standing.

12. Norse Mythology.—Primitive religion; the religious belief of the Norseman in pre-christian times; interpretation of the principal myths; theogony, cosmogony, and the myth of the end of the world. I; (2).

Assistant Professor Flom

ADVANCED COURSE FOR UNDERGRADUATES AND GRADUATES

[11. Survey of the History of the Swedish Language and Literature.—Lectures. Not given in 1912-13.

Assistant Professor FLOIT]

## COURSES FOR GRADUATES

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.

101. OLD NORSE.—Introduction to the language as a member of

the Germanic group. Reading of the Volsungasaga with selections from the King's Sagas. I, II. Assistant Professor Flow

103. OLD SWEDISH.—Introduction to the language. Noreen's Altschwedische Grammatik and Lesebuch.

Assistant Professor FLOM

110. Advanced Old Norse.—Mythical lays of the Elder Edda.

Twice a week; I. Assistant Professor Flom

130. The Runic Inscriptions.—Lectures on the runes and interpretation of the Germanic and Scandinavian inscriptions; Germanic grammar. Twice a week; II. Assistant Professor Flom

150. Research.—Special problems. Assistant Professor Flom

## GREEK

(See THE CLASSICS.)

## HISTORY

\*Evarts Boutell Greene, Ph.D., Professor
Guy Stanton Ford, Ph.D., Professor
Clarence Walworth Alvord, Ph.D., Associate Professor
Laurence Marcellus Larson, Ph.D., Associate Professor
William Spence Robertson, Ph.D., Assistant Professor
Solon Justus Buck, Ph.D., Research Associate
Arthur Charles Cole, Ph.D., Instructor
August Charles Krey, A.M., Instructor
Elizabeth Parnham Brush, A.M., Assistant
Paul Frederick Reiff, Ph.D., Research Assistant

Students who expect to teach history or to make that subject a major are advised to take History I during their freshman year. For the sophomore year History 3, 11, and 23 are recommended. During the junior and senior years students may select courses from groups B and C, in accordance with their individual tastes and interests. For those who expect to teach in secondary schools some work in ancient history is desirable.

The importance of thorough linguistic training is also emphasized, especially in Latin, French, and German.

<sup>\*</sup> On leave, February 1, 1912, to February 1, 1913.

## Honors

Candidates for honors in history must offer:

- 1. Not less than 24 hours in this subject, including History 1 and 3, at least 3 hours of English history, and at least 6 hours in Group C.
- 2. Two minor subjects aggregating at least 24 hours, approved by the department, including in each case some advanced work. The minors must be selected from the following list: Economics; political science; philosophy, including a course in logic and one in the history of philosophy (One course in education or psychology may be accepted as a part of the requirement in philosophy.); English literature, not including English 1; the classics. Economics or political science must be offered as one of the minor subjects. The ability to read simple prose in one foreign language is ordinarily expected of candidates in history, and students who have pursued the study of Romance languages or Germanic languages so far as to include courses in the history of literature may count one of these subjects as a minor.

## A. COURSES OPEN TO FRESHMEN

(Seniors taking these courses may receive half credit only.)

I. CONTINENTAL EUROPEAN HISTORY.—Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.) I, II; (4).

Professor Ford, Mr. KREY, Miss BRUSH

II. HISTORY OF ENGLAND TO 1589.—This course may be combined with English economic history, (Economics 7), or Continental European history (History 1). II; (3). Associate Professor Larson

#### B. UNDERGRADUATE COURSES NOT OPEN TO FRESHMEN

3. HISTORY OF THE UNITED STATES.—First Semester: The Colonial era; the Revolution; genesis of the federal constitution. Second semester: The United States under the constitution. (The work of either semester may be taken separately.) I, II; (3).

Professor Greene, Assistant Professor Robertson, Dr. Cole Prerequisite: One year of college work.

- 5. HISTORY OF GREECE.—I, II; (3). See Greek 20.
  - 6. HISTORY OF ROME.—I, II; (3). See Latin 19.
- 7. THE REVOLUTIONARY AND NAPOLEONIC ERA.—French conditions in the eighteenth century before 1774; the events between 1774

and 1789 which precipitated the revolution in France; the reform work of the early revolution; the Napoleonic regime in France and Europe. I; (3).

Professor Ford

Prerequisite: History 1.

17. THE HISTORY OF ILLINOIS.—The development of a typical commonwealth in the Middle West. I; (2).

Associate Professor ALVORD

Prerequisite: History 3.

18. The Teaching of History.—Preparation of students for the practical problems of historical teaching in secondary schools. *II*; (2).

Associate Professor Larson, and other members of the department

Prerequisite: History I, 3 or their equivalents; senior standing. 20. Europe in the Nineteenth Century.—The national movements of the nineteenth century and those European conditions which form the basis of modern world politics. II; (3).

Professor FORD

Prerequisite: History 1

23. HISTORY OF MODERN ENGLAND.—(A continuation of History II, following the same general plan; but emphasizing the colonial and imperial phases of English history.) I; (3). Dr. Cole Prerequisite: History I of II.

Prerequisite: History I or II.

C. COURSES FOR GRADUATES AND QUALIFIED UNDERGRADUATES

(The ability to use French and German is desirable in all of these courses and is essential in some of them.)

4. The Constitutional History of England.—First semester: institutional origins; second semester: modern constitutional practice. (For students who wish to specialize in English history, political science, or law.) I, II; (3). Associate Professor Larson

Prerequisite: One year of college history.

8. Medieval Civilization.—Religious, economic, and intellectual development of medieval society; social changes and the growth of culture in England; English sources; corresponding movements on the continent. *I*; (3). Associate Professor Larson

9. The Era of the Renaissance.—Political, religious, and economic history of Europe during the fourteenth and fifteenth centuries; the intellectual and artistic revival. (Continuation of course 8; either may be taken separately.) II; (3).

Associate Professor Larson, Mr. Krey

10. The Development of American Society in the Eighteenth Century.—An introduction to the study of the American Revolution. II; (4).

Professor Greene

[12. HISTORY OF GERMANY.—Settlement; eastern expansion; development of German cities; the Reformation; rise and development of Brandenburg-Prussia since 1640; I, II; (2). Not given in 1912-13.

Professor Ford

- [14. The Making of the Federal Constitution.—The events from 1783-1789 which resulted in the framing and ratification of the federal convention of 1787; the contemporary arguments for and against the ratification of the Constitution. II; (3). Not given in 1912-13.

  Professor Greene]
- 15. AMERICAN HISTORY, 1820-1865.—Expansion; slavery; sectionalism; the Civil War. II; (3). Dr. Cole Prerequisite: History 3.
- 16. THE HISTORY OF THE EXPLORATION AND COLONIZATION OF THE WEST FROM THE EARLIEST TIMES TO 1818.—The struggle of France, Great Britain, Spain, and the United States for the possession of the West; the colonial policy followed by each nation. I; (2).

  Associate Professor Alvord

Prerequisite: History 3.

21. THE HISTORY OF THE UNITED STATES SINCE THE CIVIL WAR.—Historical introduction to contemporary American politics.

1; (3). Assistant Professor ROBERTSON

Prerequisite: History 3.

26. The History of the Latin-American Colonies.—The political, economic, social, and intellectual life of Spain during the period of discovery; the exploration, settlement, and civilization of Spanish-America and the Philippines; the exploration and colonization of Brazil. *I*; (2). Assistant Professor Robertson

Prerequisite: History 1 or 3.

27. THE HISTORY OF LATIN-AMERICA FROM THE WARS OF INDEPENDENCE TO THE PRESENT TIME.—The national history of the leading Latin-American states; political parties; existing governments; relations with Europe and the United States. The old regime in Texas, Mexico, and California. II; (2).

Assistant Professor ROBERTSON

Prerequisite: History 3.

28. THESIS.—(For candidates for honors and for other seniors who wish special training in investigation.) I, II; (2).

Assistant Professor ROBERTSON and other members of the department

## COURSES FOR GRADUATES

Graduate courses in history at the University of Illinois are of three kinds; I. Instruction in methodology, historiography, and bibliography. This work (in course 103) is required of all graduate students in history during their first year. 2. Seminar courses for the study of special fields with a view primarily to training in the methods of historical criticism and research. 3. Courses for inforation and guidance in general reading.

Research work is offered in the following fields: Medieval history; English history with emphasis upon medieval institutions; modern European history with special reference to the rise of Prussia and the revolutionary and the Napoleonic era; American history with special reference to institutions, colonial society, western development, and the period 1820-65; the history of Latin America.

A student entering upon graduate work should have had at least the equivalent of the introductory college courses in English, Continental European, and American history. All students of history should have a reading knowledge of German and French; for medieval history some knowledge of Latin is indispensable, and in certain fields of American history Spanish is needed.

Attention is called to the fact that the University of Illinois has for some time cooperated with the Illinois State Historical Society and the trustees of the State Historical Library, in the gathering and editing of archive material. As a result of this relation instructors and graduate students in the department have contributed to the publications of these state organizations and have been given useful training in the study of manuscript and printed material.

The Historical Club, consisting of instructors and graduate students in the department, meets once a month. The program is devoted to reviews of current progress in historical work and the results of the investigations of the members.

ILLINOIS SURVEY.—Students of history also have an opportunity to pursue research in western history in connection with the Illinois Survey.

The Illinois Survey is the name given to work which has been carried on at the University for several years in the study of Illinois as a typical Mississippi Valley state. The purpose is to write the history of the State from all points of view. Therefore various departments are engaged in the work. A great deal of material has been gathered and considerable work done so that there is abundant research material for students interested in this field.

IOI. SEMINAR IN AMERICAN HISTORY.—General bibliography of American history; cooperative study of typical problems. Two hours, once a week: I. II.

Professor Greene, Associate Professor Alvord, Dr. Buck 102. Studies in English History.—Twice a week; I, II.

Associate Professor Larson

103. HISTORICAL BIBLIOGRAPHY AND CRITICISM.—Selected problems in various fields. (Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere. Twice a week; I, II. Professor Ford and others

104. SEMINAR IN MODERN EUROPEAN HISTORY.—The diplomatic relations between France and Prussia in the period of the French Revolution. I, II. Professor Ford

105. The History of Western Expansion, 1763-1818.—Lectures; readings; problems in the interpretation of western history.

Once a week; I, II. Associate Professor Alvord

III. Spanish-American Relations.—The relations of the Latin-American states with Europe and the United States; the Monroe Doctrine; the development of international trade, etc. A reading knowledge of either French or Spanish is expected.) Once a week; I, II.

Assistant Professor Robertson

[112. Selected Topics in the History of the American Colonies in the Eighteenth Century.—Two hours a week; II. Not given in 1912-13. Professor Greene]

# HORTICULTURE

Joseph Cullen Blair, M.S.A., Professor, Pomology
John William Lloyd, M.S.A., Professor, Olericulture
Charles Spencer Crandall, M.S., Professor, Pomology
Herman Bernard Dorner, B.S., Assistant Professor, Floriculture
Bethel Stewart Pickett, M.S., Assistant Professor, Pomology
Wilhelm Miller, Ph.D., Assistant Professor, Landscape Horticulture

ERNEST WINFIELD BAILEY, M.S., Associate, Pomology
CHARLES ELMER DURST, B.S., Instructor, Olericulture
ARNO H NEHRLING, Instructor, Floriculture
RALPH RODNEY ROOT, M.L.A., Instructor, Landscape Gardening
SIMEON JAMES BOLE, A.M., Instructor, Pomology
JOHN JOSEPH GARDNER, B.S.A., Instructor, Pomology
LAWRENCE EARL FOGELSONG, B.S., Instructor, Pomology
HORACE WHITTIER PEASLEE, Instructor, Landscape Design

#### COURSES FOR UNDERGRADUATES

Floriculture: Horticulture 4, 15a, 15b, 19a, 19b, 30, 31, 32, 35

Forestry: Horticulture 9

General Horticulture: Horticulture 1a, 1b, 5, 6, 7, 11, 12

Landscape Gardening: Horticulture 10a, 10b, 23a, 23b, 24a, 24b, 25a, 25b, 27, 28, 36

Olericulture: Horticulture 3, 20, 34 Pomology: Horticulture 2, 8, 17, 18, 33

1a. ELEMENTS OF HORTICULTURE.—Fruit growing, vegetable gardening, and ornamental planting, with special reference to the farm home. (Required of all freshmen in the general course in agriculture.) Lectures; assigned readings; practical exercises. *I*; (2). Professor LLOYD, Assistant Professor PICKETT, Mr. BOLE, Mr. ROOT

1b. ELEMENTS OF HORTICULTURE.—(Continuation of 1a. Required of all freshmen in the general course in agriculture.) II; (2).

Professor Lloyd, Assistant Professor Pickett, Mr. Bole, Mr. Root

2. SMALL FRUITS AND GRAPES.—The strawberry, raspberry, blackberry, dewberry, currant, gooseberry, grape. History; extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing. Lectures; reference readings. II; (2).

Assistant Professor Pickett, Mr. Bole, Mr. Gardner Prerequisite: Horticulture 12 and 1b or their equivalents, 5.

3. VEGETABLE GARDENING.—Cultural requirements of each of the common vegetables. Lectures; one practical exercise a week. II;
(3). Professor LLOYD, Mr. DURST, Mr. GARDNER

Professor LLOYD, Mr. DURST, Mr. GARDNER

Prerequisite: Horticulture 1a and 1b or their equivalents.

4. PLANT HOUSES.—Construction, cost, and maintenance; heating; ventilating. I; (3). Assistant Professor Dorner

5. PLANT PROPAGATION.—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. II; (5).

Assistant Professor Dorner, Mr. Nehrling

6. Nursery Methods.—Some details of nursery management and their relation to horticulture. Lectures; reference readings. II; (2). Assistant Professor Pickett, Mr. Bailey, Mr. Gardner

Prerequisite: Horticulture 5; Entomology 4.

7. Spraying.—Materials, appliances, and methods employed in combating insects and fungous diseases. Lectures; reference readings, laboratory; field work. II; (3).

Professor Lloyd, Mr. Bole, Mr. GARDNER

Prerequisite: Horticulture 1a and 1b or their equivalents; Chemistry 1; Entomology 4.

8. Orcharding.—Pomaceous, drupaceous, and nut fruits; management of large commercial orchards; harvesting; grading; packing; storing; marketing. *I*; (5).

Professor Crandall, Assistant Professor Pickett, Mr. Bailey Prerequisite: Horticulture 1a and 1b or their equivalents, 5; Botany 1; Entomology 4.

[9. Forestry.—Forest trees; uses; distribution; artificial production; relations of forest and climate; forestry legislation and economy. II; (2). Not given in 1912-13.

Prerequisite: Botany I, or an equivalent.]

IOA. LANDSCAPE GARDENING.—Plant studies; field trips; text books; lectures; drafting. (Open to all students.) I; (3).

Mr. Root

IOb. Landscape Gardening.—(Continuation of IOa.) II; (3).
Mr. Root

Prerequisite: Horticulture 10a.

II. Study of Cultivated Plants.—The relationship and classification of certain economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. *I*; (2).

Professor Blair, Professor Crandall

Prerequisite: Botany 2.

12. EVOLUTION OF HORTICULTURAL PLANTS.—History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors

that influence variation; particularly food supply, climate, and cross-fertilization. *I*; (3). Professor Crandall, Mr. Bole

Prerequisite: Two years of university work, including Horticulture 8 and Botany 2.

15a. PRINCIPLES OF PLANT GROWING.—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. II; (5).

Assistant Professor Dorner, Mr. Nehrling

Prerequisite: Horticulture 5; Botany 1.

15b. Commercial Crops.—Greenhouse plants and cut flowers for wholesale and retail markets; the care and marketing of the crops. Lectures; greenhouse work. I; (5).

Assistant Professor Dorner, Mr. Nehrling

Prerequisite: Horticulture 15a.

- 17. COMMERCIAL FRUIT CULTURE.—Practical work in houses and fruit plantations. (For students specializing in horticulture). *I;* (5). Professor Crandall, Assistant Professor Pickett, Mr. Bole Prerequisite: Horticulture 2, 8; Economics 2.
- 18. Experimental Horticulture.—Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpretation of results. (For advanced students preparing for Experimental Station work.) II; (5).

Professor Blair, Professor Lloyd, Professor Crandall Prerequisite: Twenty hours' work in horticulture.

- 19a. Amateur Floriculture.—Window gardening; growing of flowers upon the home grounds; containers; potting soils; fertilizers; preparation and planting of flower beds; propagation and culture of plants suitable for window and garden. I; (1). Mr. Nehrling
  - 19b. Amateur Floriculture.—(Continuation of 19a.) II; (1).
    Mr. Nehrling
- 20. Market Gardening.—Growing and handling vegetables for market. Practical exercises; reference readings. II; (3).

Professor LLOYD, Mr. DURST

Prerequisite: Horticulture 3; Economics 2.

- 22. Special Investigation and Thesis Work.—I, II; (5-10).
- 23a. Landscape Design.—The composition of public and private estates; plans; reference reading. *I*; (3). Mr. Root *Prerequisite*; Horticulture 10b.

23b. Landscape Design.—(Continuation of 23a.) II; (3).
Mr. Root

Prerequisite: Horticulture 23a.

24a. Ornamental Trees and Shrubs.—Hard wooded ornamental plant material,—characters, culture, suitability for landscape compositions; problems in arrangement; planting plans. Field trips in fall and spring; planting plans in winter months. I; (3).

Mr. Root

Prerequisite: Horticulture 10b.

24b. Ornamental Trees and Shrubs.—(Continuation of 24a.) II; (3). Mr. Root

Prerequisite: Horticulture 24a.

25a. Advanced Landscape Design.—Problems in park design; playgrounds; large private estates; cemeteries; boulevards. *I;* (3, or more by special arrangement).

Mr. Root

Prerequisite: Horticulture 23b.

25b. Advanced Landscape Design.—(Continuation of 25a.) II; (3, or more by special arrangement).

Mr. Root

Prerequisite: Horticulture 25a.

27. Landscape Practice.—Grading plans; specifications; working drawings; details for construction of garden accessories. *I*; (2).

Mr. Root

Prerequisite: Civil Engineering 22, Horticulture 23b.

28. Exotics.—Tender decorative plants used in landscape gardening. II; (1).

Mr. Root

30. Decorative and Bedding Plants.—Tropical and subtropical plants used in decorative work in the conservatory; tender plants used in out-door bedding; Lectures; practical greenhouse work. II; (5).

Assistant Professor Dorner, Mr. Nehrling

Prerequisite: Horticulture 15a.

31. Garden Flowers.—The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. *I*; (3). Assistant Professor Dorner

Prerequisite: Horticulture 5; Botany 1.

32. FLORAL DECORATION.—Cut flowers and plants in decorative work; arrangement of flowers in baskets, designs, and bouquets; table decoration; house decoration. (For floricultural students.) II; (3).

Assistant Professor Dorner

33. Systematic Pomology.—Description, nomenclature, and classification of native and sub-tropical fruits; critical descriptions

and identification with special reference to relationships and classifications of varieties; judging and displaying fruits. I; (2).

Mr. BAILEY

Prerequisite: Horticulture 8.

[34. Vegetables Under Glass.—I; (3). Not given 1912-1913.

Professor Lloyd, Mr. Durst

Prerequisite: Horticulture 3, 15a.]

[35. Private Conservatory Work.—Types of plants for large conservatories; arrangement; care. II; (3). Not given in 1912-1913. Assistant Professor Dorner, Mr. Nehrling

Prerequisite: Horticulture 15a, 4.]

36. Landscape Gardening Literature.—Reference readings; the literature on landscape gardening. II; (2). Mr. Root

## COURSES FOR GRADUATES

At least two years of collegiate work in horticulture and allied subjects and the requisite preparation for the chosen topics are required for entrance upon major work in this department.

102. POMOLOGY.—Special problems in the adaption, propagation, cultivation, or pruning of small fruits.

Professor Crandall

103. OLERICULTURE.—Special problems in the structure, cultural requirements, and improvement of vegetables.

Professor LLOYD

108. Pomology.—Special problems in the relationship, adaption, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of orchard fruits.

Professor Blair, Professor Crandall

109. Forestry.—Problems in general forestry and investigation of forest growths.

115. FLORICULTURE.—The horticultural status of various flowering plants, or special problems in the culture of greenhouse plants.

Assistant Professor Dorner

# HOUSEHOLD SCIENCE

ISABEL BEVIER, Ph.M., Professor, Household Science Nellie Esther Goldthwaite, Ph.D., Assistant Professor, Household Science

CHARLOTTE MITCHELL GIBBS, A.M., Associate, Textiles
HELENA MAUD PINCOMB, B.S., Associate, Household Science
HARRIET BECKWITH RINAKER, M.A., Instructor, Household Science
NINA BELLE CRIGLER, B.S., Instructor, Household Science

CORA EMELINE GRAY, A.M., Instructor, Household Science RUTH WHEELER, A.B., Instructor, Household Science MAUDE PARSONS, B.S., Instructor and Director of Lunch Room GEORGIA FLEMING. B.S., Assistant, Textiles GRACE ESTHER STEVENS, A.B., Assistant, Household Science

## FOOD

I. PRINCIPLES OF THE SELECTION AND PREPARATION OF FOOD. The nature and use of foods, their chemical composition, and the changes effected by heat, cold, or fermentation; the principles of selection, illustrated by marketing expeditions; processes of the manufacture of foods; combinations of different kinds. II; (3). Miss Crigler, Miss Rinaker, Miss Gray

Prerequisites: Entrance credit in physics: Chemistry 1.

6. ECONOMIC USES OF FOOD .- (Continuation of I.) The economics of the food question; uses and applications of preservatives. Miss Crigler, Miss Rinaker, Miss Gray I;(3).

Prerequisite: Household Science 1.

- 14. SPECIAL PROBLEMS IN CONNECTION WITH THE SERVICE OF Foon.—(Continuation of 6.) Problems of marketing, domestic storage, management of menus, and utilization of waste food materials as modified by special conditions. II; (3). Miss Gray Prerequisite: Household Science 6.
- 5. Dieterics.—The principles of diet; the relation of food to health; influence of age, sex, and occupation on diet; the construction of dietaries; dietetic treatment of certain diseases. Laboratory practice. II; (3). Assistant Professor GOLDTHWAITE

Prerequisite: Household Science 1, 6; Physiology 4; Chemistry

I, 2, 3.

4. FOOD AND NUTRITION.—Application of the principles of pure science to the physiological, chemical, or bacteriological problems of food and nutrition. Individual investigation. I; (5).

Assistant Professor GOLDTHWAITE

Prerequisite: Botany 5; Chemistry 1, 2, 3, 13a, 9, 9c; five hours in botany or zoology; Household Science 1, 5, 6.

# THE HOUSE

2. Home Architecture and Sanitation.-Situation, surroundings, and construction of the house; hygiene of the home; heating, lighting, ventilating, water supply, and drainage. Lectures on house planning; exercise in making skeleton plans, and on sanitary plumbing and fixtures and internal drainage. I; (2).

Professor Bevier, Professor Mann, Professor White, Miss Gibbs, Miss Pincomb, Mr. Clark

3. ELEMENTARY HOME DECORATION.—(Continuation of 2.) Evolution of the house; homes of primitive peoples; theory of color and its application in home decoration; evolution of the home; furnishings from a sanitary and artistic standpoint. II; (2).

Professor Bevier

Prerequisite: Art and Design 12, Household Science 2.

IO. HOUSEHOLD MANAGEMENT.—Organization of the household; expenditure of income; care of the house and family; principles of home nursing; other essentials of a well-ordered home. (Open to juniors and seniors.) I; (2). Miss Gray

Prerequisite: Household Science 1, 2, 5, 6; Economics 1.

### TEXTILES

- 7. Textiles.—Development of primitive industries; production of fibers used in textile manufacture; practice in judging cloth; application of the principles of selection of color and design in costumes. I; (2). Miss Gibbs
- 12. HOUSEHOLD ART AND CLOTHING.—(Continuation of 7.) Materials suitable for various uses in home and in clothing; texture, quality, design in relation to form; color in relation to environment and personality; hygienic properties and cost. II; (3).

Miss GIBBS, Miss FLEMING

Prerequisite: Household Science 7; Art and Design 1, 12; 30 hours of university work.

17. PROBLEMS IN THE STUDY OF TEXTILES.—The quality of material; microscopic and chemical analysis of fabrics; movements related to the textile industry. Lectures; laboratory. II; (3).

Miss GIBBS

Prerequisite: Household Science 7, 12; Chemistry 1, 2, 3.

# COURSES FOR TEACHERS

II. Teachers' Course.—The best method of presenting the work; its correlation with other subjects; practice in planning such courses, and some opportunity for presenting them. (For the prospective supervisor of the subject, or teacher in the graded schools. Open to seniors.) II; (3). Professor Bevier, Miss Pincomb

Prerequisite: Household Science 1, 2, 3, 5, 6, 7, 12, 13; laboratory work in sewing, Saturday morning, first semester.

- 13. HISTORY OF HOME ECONOMICS.—Origin and development of home economics; the work in different types of institutions; the planning of courses for these types. Open to juniors and seniors.)

  1; (1). Professor Bevier
- 9. Seminar.—Different phases of home economics; individual problems. II; (3). Professor Bevier

Prerequisite: Senior standing.

# ECONOMICS OF THE FAMILY

15. The Economics of the Family Group.—History and various forms of the family; its industrial organizations; money and other income; the laws of consumption; interplay of economic, physiological, and psychological motives in expenditure and consumption; reaction of the changing forms of modern industry on family industry; economic, social, and legal relations of the members of the family; economic position of woman in modern society; the domestic service problem; retail and wholesale market. II; (3).

Miss GRAY

Prerequisite: Household Science 3, 10, 12, 14; Economics 1.

16. PROBLEMS IN THE ECONOMICS OF THE FAMILY GROUP.—Individual work in the senior seminar in economics. I, II; (2-4).

Professor Kinley

Prerequisite: Household Science 15.

## COURSES FOR GRADUATES

Students who wish to do graduate work in Household Science will find it to their advantage to specialize in either the scientific or the economic phases of the subject. In either case they should be able to offer an equivalent for twenty hours of household science given in the University of Illinois, with a minimum of one and one-half years of chemistry, a year of biological science, and a year of either economics or sociology.

101. Home Economics.—The industrial, educational, and sociological aspects of the origin and development of home economics.

Professor Bevier

IO2. Special Investigation.—Problems in the application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in the preparation of food.

Professor Bevier

# ITALIAN

(See ROMANCE LANGUAGES AND LITERATURE.)

# JOURNALISM

(See Rhetoric 12, 15, 17, 19, under The English Language and Literature.)

# LANDSCAPE GARDENING

(See Horticulture.)

# LATIN

(See THE CLASSICS.)

# LAW

OLIVER ALBERT HARKER, A.M., LL.D., Professor, Dean FREDERICK GREEN, A.M., LL.B., Professor EDWARD HARRIS DECKER, LL.B., Professor JOHN NORTON POMEROY, A.M., LL.B., Professor CHESTER GARFIELD VERNIER, A.B., J.D., Professor, Secretary WILLIAM GREEN HALE, B.S., LL.B., Professor I MAURICE WORMSER, A.B., LL.B., Assistant Professor

- I. Contracts.—Williston's Cases; selected Illinois cases. (First year. Open to students in Literature and Arts, with six hours' credit.) I; (5): II; (3).

  Professor Decker
- 2. TORTS.—Ames & Smith's Cases. (First year. Open to students in Literature and Arts, with credit.) I, II; (3).

Professor HALE

3. REAL PROPERTY.—Gray's Cases, Vols. I and II. (First year. Open to students in Literature and Arts, with credit.) II; (3).

Assistant Professor WORMSER

4. Common Law Pleading.—(First year. Open to students in Literature and Arts, with credit.) II; (3). Professor Harker 4a. Illinois Procedure.—(Third year.) I; (3).

Professor HARKER

- 5. CRIMINAL LAW AND CRIMINAL PROCEDURE.—Mikell's Cases. (First year. Open to students in Literature and Arts, with credit.)

  I; (4). Professor Green
- 6. Personal Property.—Gray's Cases, Vol. I. (First year. Open to students in Literature and Arts, with credit.) I; (2).

Professor VERNIER

- 7. Domestic Relations.—Woodruff's Cases on Domestic Relations (2nd ed.) (First year.) II; (2). Professor Vernier
  - 8. Evidence.—Thayer's Cases. (Second year.) I; (3): II; (2).

Professor HALE

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9. Sales.—Williston's Cases (2nd ed.) (Elective, second or third year.) II; (3). Professor Hale

- IO. REAL PROPERTY.—Gray's Cases, Vols. II and III. (Second year.) I; (4). Assistant Professor Wormser
  - II. Agency.—Wambaugh's Cases. (Second year.) I; (3).

    Professor Vernier
  - 12. EQUITY.—Ames' Cases. (Second year.) I; (3); II; (2).

    Professor Pomeroy
- 13. Damages.—Beale's Cases, (2nd ed.) (Elective, second or third year.) I; (2). Professor Decker
- 14. CARRIERS.—Green's Cases. (Elective, second or third year.)

  11; (3). Professor Green
- 15. BILLS AND NOTES.—Huffcut's Cases (Colson's Ed.). (Third year.) I; (3). Professor Vernier
  - rear.) 1; (3). Protessor Verniel 16. Trusts.—Ames' Cases. (Elective, third year.) II; (3).
- Professor Vernier

  17. Private Corporations.—Canfield & Wormser's Cases.
- (Third year.) I; (2): II; (2). Assistant Professor Wormser 18. Wills.—Costigan's Cases. (Second year.) II; (2).
- Professor Pomeroy

  19. Partnership.—Mechem's Cases (2nd ed.) (Third year.) I;

  (2). Professor Hale
- 20. EQUITY PLEADING.—Thompson's Cases on Equity Pleading; Selected Illinois Cases. (Second year.) II: (2).

Professor HARKER

21. Suretyship.—Ames' Cases. (Third year.) II; (3).

Professor Decker

- 22. CONSTITUTIONAL LAW (a).—McClain's Cases. (Third year.) I; (3). Professor Green
- 23. Mortgages and Recording Acts.—Wyman's Cases on Mortgages and part of Vol. VI of Gray's Cases on Property. (Elective, third year.) II: (2).

  Professor Pomeroy
- 24. MUNICIPAL CORPORATIONS.—Beale's Cases on Municipal Corporations. (Elective, third year.) I; (2). Professor Pomerov
- 25. BANKRUPTCY.—Williston's Cases. (Elective, third year.)
  II; (2).
  Professor Decker
  - 26. Moot Court.—(Second year.) I, II; (2).

Professor HARKER

[27. FUTURE INTERESTS IN PROPERTY.—Gray's Cases, Vol. V.

(Elective, second or third year. Not given in 1912-13, but in 1913-14 and in alternate years.) II: (2).]

[28. INSURANCE.—Wambaugh's Cases. (Elective, second or third year. Not given in 1912-13, but in 1913-14 and in alternate years.) II; (2). Professor GREEN

29. Conveyancing.—Gray's Cases on Property, Vol. III and part of Vol. VI (2nd ed.) (Elective, second or third year. Given in 1912-13 and in alternate years.) I; (2).

30. Public International Law.—Lawrence's Principles and

Scott's Cases. (Elective, second or third year.) 1: (3).

Professor GARNER

[31. Conflict of Laws.—Beale's Shorter Selection of Cases on Conflict of Laws. (Elective, third year.) Not given in 1912-13, but in 1913-14 and in alternate years. II; (2). Professor Vernier]

32. QUASI-CONTRACTS.—Woodruff's Cases. (Elective, second or third year. Given in 1912-13 and in alternate years.) II; (2).

Professor VERNIER

33. Constitutional Law (b).—McClain's Cases. II; (2).

Professor GREEN

34. Public Service Companies.—Wyman's Cases (2nd ed.) Professor Green (Elective, second or third year.) II; (2).

# LIBRARY SCIENCE

PHINEAS LAWRENCE WINDSOR, Ph.B., Director

Frances Simpson, M.L., B.L.S., Assistant Director, Assistant Professor, Library Science

FLORENCE RISING CURTIS, A.B., B.L.S., Instructor, Library Economy ERNEST JAMES REECE, Ph.B., Instructor, Library Economy

ETHEL BOND, A.B., B.L.S., Instructor, Library Economy

EDNA LYMAN SCOTT, Special Lecturer, Library work with children CATHERINE OAKS, A.B., B.L.S., Reviser

Francis Keese Wynkoop Drury, A.M., B.L.S., Lecturer, Order work PHILIP SANFORD GOULDING, A.B., Lecturer, Cataloging JACOB HODNEFIELD, A.M., Lecturer, Exchanges EMMA FELSENTHAL, Ph.B., B.L.S., Lecturer, General Reference ALICE SARAH JOHNSON, B.L.S., Lecturer, General Reference EMMA REED JUTTON, B.L.S., Lecturer, Loan Department ADAH PATTON, B.L.S., Lecturer, Cataloging MARGARET HUTCHINS, A.B., B.L.S., Lecturer

JOHN BOYNTON KAISER, A.B., B.L.S., Lecturer
OLA M WYETH, A.B., B.L.S., Lecturer
MARGARET LUCY KINGSBURY, A.B., Lecturer
JENNIE ADAH CRAIG, A.B., B.L.S., Lecturer
MARGARET HERDMAN, A.B., Lecturer
CHARLES EDWIN JANVRIN, Ph.B., B.L.S., Lecturer
WINIFRED FEHRENKAMP, B.L.S., Lecturer
ELEANOR G KARSTEN, Ph.B., Lecturer

2. Reference Work.—Methods of research; the use of reference books; practical work in the reference department of the University library. I, II; (3). Assistant Professor Simpson

3. Selection of Books.—Selection of books for libraries of different types; practice in writing book annotations for library catalogs and bulletins. *I, II;* (2).

Miss Felsenthal

4. PRACTICE WORK.—Four hours a week of practical work in the various departments of the University library. To be taken with Library 2, 16, 17, 18, 19, 20, and 21. I, II; (2). Miss Curtis

- 6. Subject Bibliography.—Selection of books in special subjects; treatment of the literature and bibliography of each. Lectures given by professors in the respective departments of the University. *I*, *II*; (2).
- 7. History of Libraries.—The foundation, development, and resources of the leading libraries of Europe and the United States. II; (2).

  Assistant Professor Simpson
- 8. Advanced Reference.—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. I; (2).

Assistant Professor SIMPSON

Prerequisite: Library 2.

9. BOOKMAKING.—History of the early forms of books; the invention and spread of printing; book illustration; book-binding. II; (2). Director Windsor

IO. PRACTICE WORK.—Eight hours a week; a continuation of Library 4, supplemented by one month of work as a member of the staff of an assigned public library. *I*, *II*; (4). Miss Curtis

12. General Reference.—Classification and arrangement of books in the University library; the card catalogs; the more generally used reference books. (Intended for freshmen and sophomores in the University, rather than for students registered in Library School.) Repeated each semester. *I or II*; (2).

Assistant Professor Simpson, Miss Felsenthal, Miss Johnson

- 13. PUBLIC DOCUMENTS.—13a.—Production and acquisition of Federal documents; their treatment and use as reference books. 13b.—American state and municipal documents; publications of foreign governments. (Second semester elective to students who have completed 13a.) I, II; (2). Mr. REECE
- 15. Seminar in Library Economy.—Special problems; library economy publications; independent work. *I, II;* (2).

Mr. REECE and others

- 16. Order, Accession, and Shelf Work.—Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; the care of pamphlets, clippings, and maps. *I*; (2). Miss Curtis
- 17. CLASSIFICATION.—Principles of book classification; the Dewey Decimal Classification; the Cutter Expansion Classification; book numbers. I; (3). Miss Bond
- 18. Cataloging.—Dictionary cataloging; assignment of subject headings; classed cataloging; sixty hours of cataloging for the University library. *I*; (3). Miss Bond
- 19. TRADE BIBLIOGRAPHY.—Books and periodicals used as tools of the book trade of America, England, Germany, France, Italy, Spain, Holland, and the Scandinavian countries. II; (1).

Mr. REECE

- 20. LOAN DEPARTMENT.—Records connected with the loan of books; representative loan systems; rules, regulations, and practices. II; (1).

  Miss JUTTON
- 21. Printing, Binding, and Indexing.—Printing: Printing for libraries; practice in preparing copy and in reading proof; visits to print shops. Binding: Materials and methods of book-binding; bindings suitable for library use; visits to binderies; practice in preparing books for the bindery and in making necessary records; practice in the repair of books. Indexing: Indexes; the form of citation; the choice and arrangements of headings; kind of type; practice in the indexing of books and magazines. II; (2).

Director Windsor, Miss Curtis, Mrs. Karsten

22. LIBRARY EXTENSION.—Method; library associations; library schools; library commissions; township and county library systems; traveling libraries; home libraries; other agencies. II; (3).

Mr. REECE

23. LIBRARY ADMINISTRATION AND CURRENT LIBRARY LITERATURE.—Current library periodicals, bulletins, reports, catalogs, and reading lists; the organization, reorganization, and administration of small libraries; the planning and equipment of reading rooms and small library buildings; library accounts and business forms. I, II; (1).

Miss Curtis

24. Selection of Books.—English translations of representative works of French, German, Spanish, and Italian novelists of the 19th century; examination of about forty newly published books sent each month to the School for inspection. *I, II;* (2).

Assistant Librarian DRURY

25. Advanced Classification and Cataloging.—The principal systems of book classification; rules for cataloging books. II; (1).

Miss Bond

Prerequisite: Library 17, 18.

26. LIBRARY ADMINISTRATION.—Advanced order work; library organization; library architecture; library work with children; lectures on special topics by visiting librarians, members of the faculty, and the library staff. *I, II;* (3).

Miss Curtis, Assistant Librarian Drury, Mrs. Scott, Mr. Reece, and others

27. Bibliographical Institutions.—Organization and work of societies and institutions of America and Europe interested in the production of bibliographical material; coöperative undertakings; international bibliography. *I*; (1). Miss Patton

28. Practice Work.—(Students may elect special practice work in certain departments of the University library.) II; (1 to 4.)

Director WINDSOR

# **MATHEMATICS**

EDGAR JEROME TOWNSEND, Ph.D., Professor
SAMUEL WALKER SHATTUCK, C.E., LL.D., Professor, Emeritus
GEORGE ABRAM MILLER, Ph.D., Professor
HENRY LEWIS RIETZ, Ph.D., Associate Professor
CHARLES HIRSCHEL SISAM, Ph.D., Assistant Professor
JAMES BYRNIE SHAW, D.Sc., Assistant Professor
ARNOLD EMCH, Ph.D., Assistant Professor
ARTHUR ROBERT CRATHORNE, Ph.D., Associate
ROBERT LACY BÖRGER, Ph.D., Associate
ERNEST BARNES LYTLE, Ph.D., Instructor

AUBREY JOHN KEMPNER, Ph.D., Instructor WILLIAM WELLS DENTON, Ph.D., Instructor EDWARD WILSON CHITTENDEN, Ph.D., Instructor ROY MARTIN WINGER, Ph.D., Instructor GEORGE ERNEST CARSCALLEN, A.M., Assistant WARD HASTINGS TAYLOR, A.B., Assistant SIDNEY ARCHIE ROWLAND, JR., A.B., Assistant ARTHUR KIERNAN, Ph.B., Assistant CLARENCE MARK HEBBERT, B.S., Assistant GEORGE RUTLEDGE, A.B., Research Assistant

The courses offered by the department are arranged to meet the needs of three classes of students: (1) those who wish to elect the subject as an element in a general education; (2) those who will have occasion to make use of mathematics in cognate subjects, and (3) those who wish to specialize in mathematics. Those who select mathematics as a major subject should take Mathematics 2, 4, and 6 in the freshman year; Mathematics 7, 9, and 18a in the sophomore year, and Mathematics 10, 16, 17a, and 19a in the junior year. In the senior year the selection may be made from the courses open to graduates and undergraduates as seems desirable. Students specializing in mathematics are advised to take work also in some line of applied mathematics.

The mathematical library, consisting of about 2,500 volumes, is adequate for advanced work and research. The leading mathematical journals are received currently. The department also has in its possession a collection of models and computing machines, which are valuable in instruction and research.

# INTRODUCTORY COURSES FOR UNDERGRADUATES

2. College Algebra.—I; (3). (Three sections repeat the work in the second semester.)

Professor Miller, Associate Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Lytle, Dr. Stouffer, Dr. Kempner, Dr. Denton, Dr. Chittenden, Dr. Winger, Mr. Carscallen, Mr. Taylor, Mr. Rowland, Mr. Kiernan, Mr. Hebbert

Prerequisite: Entrance algebra, 1½ units; plane geometry.

3a. Spherical Trigonometry.—II; (2). Dr. Crathorne
Prerequisite: Solid and spherical geometry.

4. Plane Trigonometry.—I; (2). Three sections repeat the work in the second semester.)

Professor Miller, Associate Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Lytle, Dr. Stouffer, Dr. Kempner, Dr. Denton, Dr. Chittenden, Dr. Winger, Mr. Carscallen, Mr. Taylor, Mr. Rowland, Mr. Kiernan, Mr. Hebbert

Prerequisite: Entrance algebra, 11/2 units; plane geometry.

5. Teachers' Course.—Secondary algebra and geometry; their educational values; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order of topics; most important topics; text-books; literature. Lectures; discussions; reports. II; (2). Dr. Lytle

Prerequisite: Junior standing.

6. Analytic Geometry.—Piane and solid analytic geometry. II; (5).

Professor Miller, Associate Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Lytle, Dr. Stouffer, Dr. Kempner, Dr. Denton, Dr. Chittenden, Dr. Winger, Mr. Carscallen, Mr. Taylor, Mr. Rowland, Mr. Kiernan, Mr. Hebbert

Prerequisite: Mathematics 2, 4.

7, 9. DIFFERENTIAL AND INTEGRAL CALCULUS.—The principles of the differential and integral calculus developed and applied to functions of one and of several variables. (Section A is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.)  $I_{j}$  (5);  $II_{j}$  (3).

Associate Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Lytle, Dr. Stouffer, Dr. Kempner, Dr. Denton, Dr. Chittenden, Dr. Winger, Mr. Carscallen

Prerequisite: Mathematics 6.

9a. DIFFERENTIAL AND INTEGRAL CALCULUS.—(Second Course.) The definite (single and multiple) integral with exercises in the formulation of problems arising in applied mathematics; line, surface, and volume integrals; the theorems of Stokes and Green; partial differentiation; exact differentials with applications of the condi-

tions for exactness; elements of differential questions; approximate quadature and integration of differential equations. I or II; (2).

Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Stouffer

Prerequisite: Mathematics 7, 9.

8a. DIFFERENTIAL AND INTEGRAL CALCULUS.—(For students in chemistry and chemical engineering.)  $I_{ij}$  (5).

Professor Miller, Dr. Denton

Prerequisite: Mathematics 6.

18a. Constructive Geometry.—Development and training of space perception; properties of lines, planes, and the simpler surfaces of the second order studied by various methods of parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. II; (3).

Assistant Professor Emch

Prerequisite: Mathematics 6.

COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

10. Theory of Equations and Determinants.—Some of the fundamental properties of an algebraic equation in one unknown; the solutions of systems of simultaneous equations; theory of a system of linear equations; some fundamental properties of determinants. II; (3).

Professor Miller

Prerequisite: Mathematics 6.

16. DIFFERENTIAL EQUATIONS.—General linear equations with constant coefficients; special forms of differential equations of higher order; integration in series. *I*; (3).

Dr. CRATHORNE, Dr. STOUFFER

Prerequisite: Mathematics 8a or 9.

17a. Advanced Calculus.—Fundamental notions and theorems of the calculus from a more advanced and critical point of view; elliptic integrals; functions defined by definite integrals. *II*; (3).

Dr. LYTLE

Prerequisite: Mathematics 7, 9.

19a. Solid Analytic Geometry.—Equations of the plane and the right line in space; the more general properties of surfaces of the second degree; the classification and special properties of quadrics; a brief introduction to the theory of surfaces in general. II; (3).

Assistant Professor Sisam

Prerequisite: Mathematics 8a (or 7), 10.

20. CALCULUS OF VARIATIONS.—Those elements of the science

that are most needed in the study of the higher subjects of mathematical astronomy and physics. II; (3). Dr. Crathorne

Prerequisite: Mathematics 16.

[21a. Method of Least Squares.—Law of probability and error; adjustment of observation; precision of observation; independent and conditional observations. *I*; (2). Not given in 1912-13; given in 1913-14.

Assistant Professor Stebbins

Prerequisite: Mathematics 8a or 7.]

22a. Partial Differential Equations.—Integration and determination of the integration constants of such partial differential equations as arise in the study of such subjects as the flow of heat, the vibration of strings, plates, and electricity. II; (2).

Dr. CRATHORNE

Prerequisite: Mathematics 16.

23a. Averages and the Mathematics of Investment.—Meaning, use, and abuse of different kinds of averages; relation of the theory of probability to averages; application of the elements of probability to annuities, insurance, and various branches of science; loans and investments; practical problems in the evaluation of investment securities. II; (3).

Associate Professor Rietz

Prerequisite: Mathematics 2; junior standing.

24a. Functions of a Complex Variable.—I, II; (3).

Professor Townsend

Prerequisite: Mathematics 7, 9, 16.

[27. Projective Geometry.—Fundamental concepts; anharmonic ratio; projective pencils and ranges; projective transformations and groups; theory of conics and quadric surfaces; pencils and ranges of conics; quadratic transformations and projective theory of cubics; applications in mechanics. I, II; (3) Not given in 1912-13; given in 1913-14.

Assistant Professor Emch

Prerequisite: Senior standing in mathematics.]

31. Actuarial Theory.—Application of probability to life contingencies; mortality tables; fire insurance; premiums for various types of insurance. I; (3).

Associate Professor Rietz

Prerequisite: Mathematics 8a, 23a.

32. HISTORY OF MATHEMATICS.—Historical development of the elementary subjects; rise and growth of the higher mathematics chiefly in the nineteenth century; biography of the persons most influential in this development. Lectures; reports on assigned reading. II; (2).

33. Modern Algebra.—Theory of matrices; system of linear equations; bilinear and quadratic forms; properties of polynominals; algebraic invariants; elementary divisors. *I*, *II*; (3).

Dr. Börger

Prerequisite: Mathematics 9, 10.

## COURSES FOR GRADUATES

IOO. SEMINAR AND THESIS—Three times a week; I, II.

Professor Townsend, Professor Miller, Associate Professor
RIETZ. Assistant Professor SISAM. Assistant Professor SHAW.

Assistant Professor EMCH

[101. Functions of Real Variables.—The theory of functions of real variables; the theory of assemblages. Three times a week; I, II. Not given in 1912-1913; given in 1913-1914. Dr. Crathorne Prerequisite: Mathematics 16.]

102. FOURIER SERIES.—Three times a week; I, II.

Assistant Professor Shaw

Prerequisite: Mathematics 16 or 17a.

103. Theory of the Potential.—Newtonian, logarithmic, and other potential functions; spherical harmonics; Green's theorem and functions; existence and boundary theorems; functions defined by other related partial differential equations of physics; applications to Electrodynamics. (For students of pure mathematics and of the physical sciences.) Three times a week; I, II.

Assistant Professor Shaw

Prerequisite: Mathematics 16 or 17a.

110. ELLIPTIC FUNCTIONS.—Elliptic functions applied to geometry and mechanics; the elliptic modular functions. Three times a week; I, II.

Assistant Professor Emch

Prerequisite: Mathematics 24a.

III. AUTOMORPHIC FUNCTIONS.—First semester: The group-theoretic side of the theory. Second semester: Function-theoretic developments and applications. Three times a week; I, II.

Prerequisite: Mathematics 24a and preferably 27 and 110.

112. ABELIAN FUNCTIONS.—Algebraic functions of a complex variable and their integrals; Rieman's surfaces; birational transformations; Abel's theorem with geometric applications; the inversion problem and the theta functions. Three times a week; I, II.

Prerequisite: Mathematics 24a, 110.

113. Theory of Linear Differential Equations.—Three times a week; I, II. Dr. Crathorne

Prerequisite: Mathematics 24a.

120. ELEMENTARY THEORY OF GROUPS.—Groups in arithmetic, geometry, and trigonometry; those which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. Three times a week; I, II. Professor Miller

121. Theory of Groups.—Three times a week; I, II.

Professor MILLER

Prerequisite: Mathematics 120.

[124. Theory of Numbers.—Congruences; Kronecker's modular systems; quadratic residues; quadratic forms; algebraic numbers. Three times a week; I, II. Not given in 1912-13; given in 1913-14.

Professor Millerl

129. THEORY OF STATISTICS.—General methods of statistical investigation; application of the theory of probability to statistical data; fitting curves to observation; interpolation; theory of errors; mathematical theory of variability and correlation; application of principles developed to problems in economics, sociology, and biology. Three times a week; I, II.

Associate Professor Rietz

Prerequisite: Mathematics 8a.

II30. Invariants and Higher Plane Curves.—General theory of algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. Three times a week; I, II. Not given in 1912-13; given in 1913-14: Dr. Börger

Prerequisite: Mathematics 16, 27.]

[131. Algebraic Surfaces.—Application of homogeneous coordinates and the theory of invariants to geometry of three dimensions; general theory of surfaces; special properties of surfaces of the third and fourth order. Three times a week; I, II. Not given in 1912-13.

Assistant Professor Sisam

Prerequisite: Mathematics 19a, 130.]

135. METRIC DIFFERENTIAL GEOMETRY.—Applications of the calculus to the general theory of curves and surfaces based primarily on the use of Cartesian co-ordinates; relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. Three times a week; I, II.

Assistant Professor Sisam

Prerequisite: Mathematics 16.

[140. THE FUNDAMENTAL CONCEPTS OF MATHEMATICS.—The general concepts of higher mathematics in their bearing on elementary

mathematics. Three times a week; I. Not given in 1912-13; given in 1913-14. Dr. LYTLE

Prerequisite: Senior standing in mathematics.]

[141. Vector Methods.—Three times a week; I, II. Not given in 1912-13; given in 1913-14. Assistant Professor Shaw Prerequisite: Mathematics 16 or 17a.]

# MECHANICAL ENGINEERING

CHARLES RUSS RICHARDS, M.M.E., Professor
GEORGE ALFRED GOODENOUGH, M.E., Professor, Thermodynamics
BRUCE WILLET BENEDICT, B.S., Director, Shop Laboratories
OSCAR ADOLPH LEUTWILER, M.E., Assistant Professor, Machine
Design

IOHN ADLUM DENT. M.E., Instructor \*ARCHIE STANTON BUYERS, B.S., Instructor Brainerd Mitchell, Jr., M.E., Instructor, Machine Design HARRY FREDERICK GODEKE, B.S., Instructor HERBERT SETON EAMES, B.S., Instructor DAVID LEONARD SCROGGIN, Instructor, Machine Shop FREDERICK ELLIS, Instructor, Wood Shop EDGAR THOMAS LANHAM, Instructor, Forge Shop ROBERT EDWIN KENNEDY, Instructor, Foundry JOHN NICHOLAS VEDDER, A.M., Assistant ALONZO PLUMSTED KRATZ, M.S., Assistant EDWIN BRENTON FLANIGAN, C.E., Assistant JAMES MERION DUNCAN, Assistant, Wood Shop GUSTAV H RADEBAUGH, Assistant, Machine Shop PETER JOSEPH REBMAN, Assistant, Forge Shop JOSEPH CULPEPPER PENDLETON. Assistant. Foundry JOHN ALEXANDER FRISK. Assistant and Mechanician

3. Power Measurement.—The apparatus used in engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines, pumps, and gas engines. Reports. I; (2).

Mr. Godeke, Mr. Eames, Mr. Kratz, Mr. Flanigan Prerequisite: Mechanical Engineering 16, Mathematics 9.

4. ELEMENTS OF MACHINE DESIGN.—Design of machine ele-

<sup>\*</sup>Resigned, Dec. 31, 1912.

ments: Bolts, keys, journals, bearings, couplings; forms of gear teeth; spur and bevel gears. I; (2). Mr. MITCHELL Prerequisite: General Engineering Drawing I. 2.

5. Mechanism (Kinematics of Machinery).—Typical mechanisms and mechanical movements; kinematic principles involved in laying out such mechanisms; the methods of Reuleaux; parallel motions; quick return motions; valve gears; epicyclic trains. I; (3).

Mr. Dent. Mr. Buyers

Prerequisite: Physics 1, 3; Theoretical and Applied Mechanics 7.

6. HEAT ENGINES.—The steam engine; steam turbine; gas engine; air compressor; refrigerating machine. Mixtures of gases; combustion of gaseous fuels. (A continuation of course 7.) I, II;

(2). Professor Richards, Professor Goodenough

Prerequisite: Mechanical Engineering 7.

7. THERMODYNAMICS.—The transformation of heat into work; the second law and its connection with irreversible processes; the properties of heat media, the perfect gases, saturated and superheated vapors; the flow of fluids. II; (3).

Professor Goodenough, Mr. Dent

Prerequisite: Mathematics 9a; Theoretical and Applied Mechanics 8.

8. MECHANICS OF MACHINERY.—Friction in machine parts; useful application of friction as in friction clutches and brakes; transmission of power by ropes and belting; brakes, clutches, and dynamometers; hoisting machinery; hoisting in mines; elevators and cranes; hydraulic machinery; accumulators, and centrifugal pumps; fans, blowers, air compressors, air motors and transmission of power by means of air. I; (3).

Assistant Professor Leutwiler

Prerequisite: Theoretical and Applied Mechanics 9, 11; Mechanical Engineering 5, 7.

9. Machine Design.—Theory of machine design, with applications; investigation of actual machine similar to the one to be designed; design of machinery subjected to heavy and variable stresses: Punches, shears, presses, riveters, and cranes. *I*, *II*; (3).

Assistant Professor Leutwiler, Mr. Buyers

Prerequisite: Theoretical and Applied Mechanics 8, 9; Mechanical Engineering 4, 5.

II. Steam Engines and Boilers.—The construction, operation, and care of boilers and engines; elementary thermodynamics; the

indicator and indicator diagrams; steam engine performance. (For students in civil, architectural, and municipal engineering.) II; (3).

Mr. DENT, Mr. MITCHELL

Prerequisite: Physics 1.

12. MECHANICAL ENGINEERING LABORATORY.—Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and the refrigerating machines. Tests of power plants in the vicinity. I; (3).

Mr. Godeke, Mr. Kratz, Mr. Eames, Mr. Flanigan

Prerequisite: Mechanical Engineering 3, 7.

- 13. MECHANICAL ENGINEERING LABORATORY.—The testing and calibration of instruments and apparatus; use of the indicator; calculation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) II; (3). Mr. GODEKE, Mr. KRATZ, Mr. EAMES, Mr. FLANIGAN
- 14. Design of Power Plants.—Design, with estimates and specifications, of some form of power plant. II; (3).

Assistant Professor Leutwiler, Mr. Kratz

Prerequisite: Mechanical Engineering 12.

15. Thermodynamics and Heat Engines.—A synopsis of courses 6 and 7, for students in electrical engineering. I, II; (3).

Professor Goodenough, Mr. Dent, Mr. Eames

Prerequisite: Mechanical Engineering 11 or 16 or 23.

- 16. Steam Engineering.—Engines, boilers, pumps, condensers, and other steam machinery. II; (3). Mr. Godeke, Mr. Eames Prerequisite: Physics 1, 3.
- 19. Seminar.—Papers on subjects relating to current engineering practice; the indexing of current engineering literature. Each student subscribes for a technical journal. Open to seniors only. I, II; (1).

  Professor Richards
- 23. Steam Engineering.—A synopsis of courses 11 and 16, for students in electrical engineering.  $I_{\tau}$  (2).

Professor Goodenough, Mr. Dent, Mr. Eames

24. Machine Design and Mechanism.—The design of simple machine elements: keys, couplings, gears; the principles of mechanism. (For students in electrical engineering.)  $I_{\mathcal{F}}$  (3).

Mr. Buyers, Mr. MITCHELL

Prerequisite: General Engineering Drawing 1, 2.

27. ADVANCED LABORATORY PRACTICE.—Special research work in

the mechanical engineering laboratory. Open to seniors only. Time and credits will be arranged by consultation. Mr. Kratz

Prerequisite: Mechanical Engineering 12.

29. Seminar for Juniors.—Technical publications; the presentation of abstracts of important articles on engineering topics. Methods of classification; filing systems for clippings, catalogs, and drawings. II; (1).

Professor Richards

Prerequisite: Rhetoric 1.

31. Transmission of Power.—The transmission of power by shafting, belts, ropes, cables, water, compressed air, steam, and gas. I; (2).

Professor Richards

Prerequisite: Mechanical Engineering 7, 8.

32. MECHANICAL ENGINEERING LABORATORY.—Heating and ventilation. Calibration of instruments, tests of various heating systems, experiments on fans and blowers. *I*; (1).

Mr. Godeke, Mr. Kratz, Mr. Flanigan

33. Thesis.—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. Weekly reports during the second semester. (Required of seniors.) II; (3).

Professor Richards, Professor Goodenough, Director Benedict,

Assistant Professor Leutwiler

35. MINE MACHINERY.—Air compressors, pumps, gas engines, and other machinery used in mining. (For students in mining engineering.) I; (2). Mr. Dent

# 41. SHOP PRACTICE.

Pattern Work (18 weeks).—Exercises in elementary wood work; wood turning; pattern making. Blue prints and practice in reading drawings.

Forge Work (9 weeks).—Methods of handling iron and steel in the forge fire; forging, welding, and the working of iron and steel under the power hamner; heat treatment of steel, including the handling of the modern high speed steels.

Foundry Work (9 weeks).—Molding and core work; melting and casting iron and brass; molding machines and other labor-saving devices; the mixing of iron; the operation of the cupola; the mixing and melting of brass and other soft metals. I, II; (3).

Director Benedict, Mr. Ellis, Mr. Lanham, Mr. Kennedy, Mr. Duncan, Mr. Rebman, Mr. Pendleton

42. Machine Shop Practice.—Elementary exercises in chipping, filing; practice on the drill, lathe, planer, and other standard machine tools; methods of manufacture; cost-keeping systems; visits of inspection. *I*; (3), *II*; (2).

Director Benedict, Mr. Scroggin, Mr. Radebaugh 46. Advanced Shop Practice.—The construction of commercial machinery, of apparatus or machines originally designed by the student, or a study of modern shop processes, especially those relating to the production of interchangeable parts by means of jigs and templates. Elective for juniors or seniors. I or II. Time and credits will be arranged.

Director Benedict, Mr. Scroggin

Prerequisite: Mechanical Engineering 41, 42.

- 47. Shop Practice for Special Students.—Open only to special students. No credit.

  Mr. Scroggin
- 48. Forge Shop Practice.—Forging for the practical farmer. For students in agriculture. Six hours a week, either half of I or II; (2).

  Mr. Lanham, Mr. Rebman
- 49. Wood Shop Practice.—For students in agriculture. Nine hours a week, to be arranged. I or II; (3). Mr. Ellis, Mr. Duncan

# COURSES FOR GRADUATES

Entrance upon graduate work in mechanical engineering presupposes the full undergraduate course in that subject.

106. Heat Motors.—The advanced theory of the internal combustion motor, and of the steam turbine. The general principles and methods of refrigeration. Twice a week; II.

Professor Goodenough

107. THERMODYNAMICS.—The general principles of thermodynamics and their application to the solution of physical and engineering problems. Twice a week; I. Professor Goodenough Prerequisites Mechanical Engineering 7 or an equivalent

109. Machine Design.—The general principles of rational design; the application of mechanics of materials. Individual problems. Twice a week; I or II. Assistant Professor Leutwiler

- 112. LABORATORY INVESTIGATION.—Special investigations of problems relating to combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. Three times a week; I or II.

  Professor Richards and assistants
- 114. DYNAMICS OF MACHINERY.—Advanced problems. Balancing; whirling and vibration of shafts; theory of governors; fly wheels;

force and mass reduction; stresses in rotating masses. Twice a week; I, II. Professor Goodenough

# MECHANICS, THEORETICAL AND APPLIED

ARTHUR NEWELL TALBOT, C.E., Professor, Municipal and Sanitary Engineering; in charge of Theoretical and Applied Mechanics
HERBERT FISHER MOORE, M.M.E., Assistant Professor
MELVIN LORENIUS ENGER, C.E., Assistant Professor
VIRGIL R FLEMING, B.S., Associate
CLARENCE EUGENE NOERENBERG, A.B., A.E., Instructor
FRED B SEELY, B.S., Instructor
GEORGE PAUL BOOMSLITER, B.S., Instructor
HARRISON FREDERICK GONNERMAN, B.S., Instructor
NEWTON EDWARD ENSIGN, A.B., B.S., Instructor
STANLEY PRINCE FARWELL, M.S., Instructor
FLOYD HAYS MILLARD, M.S., Instructor

6. Engineering Materials.—The properties and requirements for materials used in engineering construction, the effect of methods of manufacture upon the quality of the material, and the specifications and standard tests used to secure acceptable grades of material. Lectures and assigned reading.  $I_i$  (1).

PROFESSOR TALBOT, Assistant Professor Moore
Prerequisite: Registration in Theortical and Applied Mechanics 9.

7, 8. ANALYTICAL MECHANICS.—The mechanics of engineering rather than that of astronomy and physics: Fundamental concepts; equilibrium and motion; engineering problems; statement of conditions and use of data. (The work begins in the second semester; in the first semester of the following year it is given concurrently with Theoretical and Applied Mechanics 9.) Maurer's Technical Mechanics. II; (3); I; (2½).

Assistant Professor Enger, Mr. Noerenberg, Mr. Boomsliter, Mr. Seely, Mr. Ensign, Mr. Farwell, Mr. Millard

Prerequisite: For 7, Mathematics 7, registration in Mathematics 9; for 8, Mathematics 9; Theoretical and Applied Mechanics 7.

9. RESISTANCE OF MATERIALS.—The mechanics of materials; experiments and investigations in the materials laboratory; problems in ordinary engineering practice; the quality and requirements for structural materials. Merriman's Mechanics of Materials. Laboratory weekly. I; (3½).

Assistant Professor Enger, Mr. Fleming, Mr. Noerenberg, Mr. Boomsliter, Mr. Seely, Mr. Ensign, Mr. Gonnerman, Mr. Farwell, Mr. Millard

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 7; registration in Theoretical and Applied Mechanics 8.

10. HYDRAULICS.—The pressure and the flow of water and its utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; determination of experimental coefficients. Hoskins' Hydraulics. Laboratory weekly; II; (3).

Assistant Professor Enger, Mr. Fleming, Mr. Seely, Mr. Gonnerman, Mr. Farwell

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 8.

11. ANALYTICAL MECHANICS.—Advanced kinetics; problems and applications. (An extension of Theoretical and Applied Mechanics 7 and 8, for mechanical engineers.) II; (3). Mr. SEELY

Prerequisite: Mathematics 9; Theoretical and Applied Mechan-

ics 8.

14. ELEMENTS OF MECHANICS.—Kinematics, kinetics, and statics. (For architects and others who have not taken the calculus.) Morley's Mechanics for Engineers. II; (4).

Mr. Noerenberg, Mr. Boomsliter, Mr. Millard

Prerequisite: Mathematics 2, 4.

15, 16. Strength of Materials.—Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; properties and tests of engineering materials. (For students in architecture and others without the prerequisites required for Theoretical and Applied Mechanics 9.) Murdock's Strength of Materials. Laboratory every other week I, II; (3).

Mr. Noerenberg, Mr. Boomsliter, Mr. Millard, Mr. Fleming Prerequisite: Theoretical and Applied Mechanics 14.

# COURSES FOR GRADUATES

Entrance upon graduate work in theoretical and applied mechanics presupposes a full undergraduate course in that subject.

IOI. Analytical Mechanics.—Methods of treatment and attack; the more complex problems and applications; critical and comparative study of texts. Twice a week; I.

Assistant Professor Moore

102. RESISTANCE OF MATERIALS.—Properties of materials used in engineering construction and the methods of determining these properties; analysis and investigation in mechanics of materials; the effect of form of member in a structure or machine; the method of application of forces; comparative study of texts. Twice a week; II.

Assistant Professor Moore

103. HYDRAULICS AND HYDRAULIC ENGINEERING.—The laws of hydraulics and their application to engineering problems; hydraulic power and its development; design and investigation. Twice a week; II.

Professor Talbot

IO4. EXPERIMENTAL WORK IN THE LABORATORY OF APPLIED MECHANICS.—Investigation in the materials testing laboratory on materials and on their action as used in machines and structures; experiments in the hydraulic laboratory with pumps, motors, and measuring devices, and the investigation of the laws of hydraulics, the development of power, and the study of various hydraulic problems. I, II. Professor Talbot, Assistant Professor Moore

IO5. EXPERIMENTAL AND ANALYTICAL WORK IN REINFORCED CONCRETE.—Research: interpretation of available experimental results and their application to the design of structures; principles of construction; typical reinforced concrete structures. Twice a week. I, II.

Professor Talbot

# METEOROLOGY (See under GEOLOGY.)

# MILITARY SCIENCE

BENJAMIN CLARKE MORSE, Major of Infantry, U. S. Army, Professor and Commandant

EUGENE HENDRICKS LESLIE, Assistant
HOWARD CHRISTOPHER HOHMAN, Assistant
HARWELL CLOUD THOMPSON, Assistant
CHARLES RUSH HORRELL, Assistant
LEWIS BROWN ERMELING, Assistant

\*I. THEORETICAL INSTRUCTION.—Infantry Drill Regulations. For all male students. II; (1).

Mr. Leslie, Mr. Hohman, Mr. Thompson, Mr. Horrell, Mr. Ermeling

<sup>\*</sup> Freshmen and sophomores are required to drill one and one-half hours each week until March 15; after that date, three hours each week. Freshmen attend recitations one hour a week in the second semester. Assignments to classes and companies are made by the Commandant of Cadets according to circumstances.

- \*2. Practical Instruction.—Infantry.—School of the soldier: company and battalion; regimental ceremonies. Artillery.-School of the cannoneer and battery dismounted. Freshman and sophomore years. I. II: (1).
- 3. THEORETICAL INSTRUCTION.—For sophomores: Drill Regulations and military administration. For juniors: Field Service Regulations. For seniors: Field Engineering. This course is obligatory upon commissioned officers and sergeants, recommended to corporals, and open to others. I, II. Professor Morse

AUTHORIZED TEXT-BOOKS—United States Drill Regulations: United States Army Regulations: Field Service Regulations, United States Army; Guard Manual; Small Arms Firing Regulations.

# MINERALOGY

(See Geology 5, 5a, 6, 7, 7a.)

# MINING ENGINEERING

HARRY HARKNESS STOEK, B.S., E.M., Professor FRANCIS CHURCH LINCOLN, E.M., Ph.D., Assistant Professor HERBERT HOUGHTON LAUER, E.M., Instructor STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., Field Assistant

- I. FLEMENTARY MINING PRINCIPLES.—The general processes of mining engineering; terminology. Lectures; trips of inspection. I; Professor STOEK (1).
- 2. EARTH AND ROCK EXCAVATION.—Explosives; blasting; drilling; boring; tunneling; shaft sinking; coal cutting. II: (3).

Professor Stoek, Assistant Professor Lincoln

Prerequisite: Chemistry 1a or 1b.

3. MINING METHODS,—Mining and timbering of bedded, vein, Professor Stoek and placer deposits. I; (2).

Prerequisite: Mining Engineering 2.

4. MINE SURVEYING.—The application of general surveying methods to mine work: the description and use of instruments employed underground and in connecting surface and underground surveys; the platting and use of mine maps; mineral land survey-

<sup>\*</sup>See note, page 379.

ing; the theory and use of solar attachments; determination of the meridian; theory and use of stadia; application of topographic and railroad surveying to mining conditions; estimation and prospecting of mineral deposits. II; (4). Mr. LAUFR

Prerequisite: Civil Engineering 21.

5. MINE VENTILATION.—Mine gases; safety lamps; explosions in mines; rescue work; first aid; mine ventilation; mine lighting. II; (3). Mr. LAUER

Prerequisite: Chemistry 1a or 1b.

6. MECHANICAL ENGINEERING OF MINES.—Hoisting: ropes, cages, hoisting engines, and other appliances. Haulage: the different systems used underground and on the surface; the methods of loading and unloading: mine stables: transportation of workmen. Signaling. Drainage of mines: mine dams, mine pumps. Tipple arrangements: rock houses; ore bins. General surface plant. Design and drafting Mr. LAUER of mining plant. I:(3).

Prerequisite: Mechanical Engineering 16, or 11, or 23.

- 7. MINE ADMINISTRATION, ORGANIZATION, AND MINING LAW .-Mining companies. Trade agreements-relations between employers and employees. Transportation and marketing. The general mining laws of the several states, with particular attention to those of Illinois. II; (2). Professor STOEK
- 8. MINE PLANT.—Location; design; estimates for construction. II: (2).Mr. LAUER
- 9. PREPARATION OF COAL AND ORES.—The handling and utilization of coal: crushing, screening, washing, coking, briqueting, sampling, weathering. Ore dressing: milling. 1: (2)

Assistant Professor Lincoln

- 10. MINING LABORATORY.—Experiments with safety lamps, anemometers, water gages, mine fans, coal washing, and ore dressing machinery; II; (3). Professor Stoek, Assistant Professor Lincoln Prerequisite: Mining Engineering 5.
- II. THESIS.—Individual investigation of a special mining subject; preparation of thesis giving review of the literature on the subject, the results of experimental work, and a general discussion of the subject. II: (3).
- 12. MINE DESIGN.—General theory of framed structures; design of mine structures of wood, steel, and masonry. I; (3).

Mr. LAUER

## COURSES FOR GRADUATES

Entrance upon graduate work in mining engineering presupposes a full undergraduate course in that subject.

IOI. ADVANCED COAL MINING.—The coal fields of the United States; methods of mining; the economics of coal mining: utilization, marketing, storage, and transportation of coal. Twice a week; I, II; Professor Stoek

102. Advanced Preparation of Coal and Ores.—Twice a week; I, II. Assistant Professor Lincoln

# MODERN LANGUAGES

(See English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

# MUNICIPAL AND SANITARY ENGINEERING

ARTHUR NEWELL TALBOT, C.E., Professor

MELVIN LORENIUS ENGER, B.S., C.E., Assistant Professor, Theoretical and Applied Mechanics

GEORGE CONRAD HABERMEYER, B.S., Associate

VIRGIL R FLEMING, B.S., Associate, Theoretical and Applied Mechanics

Paul Hansen, B.S., Associate

2. WATER SUPPLY ENGINEERING.—Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. Turneaure and Russell's Public Water Supplies. I; (4).

Assistant Professor Enger, Mr. Habermeyer, Mr. Fleming Prerequisite: Theoretical and Applied Mechanics 9, 10; Chemistry 1; Mechanical Engineering 11.

3. Sewerage.—The design and methods of construction of sewerage systems: Sanitary necessity of sewerage; water carriage systems, both separate and combined; surveys and general plans; hydraulics of sewers; house sewage and its removal; relation of rainfall to storm water flow; determination of size and capacity of sewers; forms and strength of sewer appurtenances; modern meth-

ods of sewage disposal; estimates and specifications. Designing weekly. Folwell's Sewerage; II; (3).

Assistant Professor Enger, Mr. Habermeyer, Mr. Fleming Prerequisite: Theoretical and Applied Mechanics 9, 10; Chem-

istry 1; Municipal and Sanitary Engineering 2.

5a. Bacteriology.—The identification and classification of bacteria, and of allied organisms; their relations to health and to disease; methods of separation and cultivation; methods of air and water analysis. (For students in municipal and sanitary engineering.) I; last 7 weeks; (2). Assistant Professor RAHN

Prerequisite: Civil Engineering 4a.

6a, b. WATER PURIFICATION, SEWAGE DISPOSAL, AND GENERAL SANITATION.—Impurities in water supplies and methods and processes of their removal; the modern methods of sewage disposal by filtration, chemical precipitation, irrigation; representative purification plants; garbage collection and disposal; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. *I*; (3); *II*; (2). Professor TALBOT, Mr. HABERMEYER

Prerequisite: Municipal and Sanitary Engineering 2, 3, 5a;

Chemistry 1, 3, 10b.

7. WATER SUPPLY ENGINEERING.—Similar to Municipal and Sanitary Engineering 2, for students in sanitary science. Designing weekly. Turneaure and Russell's Public Water Supplies. I; (4).

Mr. HABERMEYER

Prerequisite: Theoretical and Applied Mechanics 5, 12, 10; Chemistry 3.

8. Sewerage.—Similar to Municipal and Sanitary Engineering 3, for students in sanitary science. Designing weekly. Folwell's Sewerage. II; (3). Mr. HABERMEYER

9. HYDRAULIC DESIGN AND CONSTRUCTION.—The design and methods of construction of reservoirs, dams, conduits, and waterways: hydraulic engineering problems. II; (2).

Assistant Professor ENGER

30. Thesis.—Investigation or design of an engineering problem. Required of seniors. II; (2). Professor Talbot, Mr. Habermeyer

## COURSES FOR GRADUATES

Entrance upon graduate work in municipal and sanitary engineering presupposes a full undergraduate course in that subject.

102. WATER SUPPLY Engineering.—Sources and requirements of water supply; general water-works construction; pumps and

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pumping; design of reservoirs and elevated tanks; water-works operation and the valuation of plants. One to three times a week; I or II.

Professor TALBOT

103. Sewerage.—General sewerage design and construction; sewerage systems; hydraulics of sewers; and a study of run-off.

Once or twice a week; II.

Professor Talbot

106. WATER PURIFICATION, SEWAGE DISPOSAL AND GENERAL SANITATION.—The design, construction, and operation of water purification plants and of sewage disposal works; the study of existing plants; comparison of results and cost of construction and operation; experimental work on water filters and septic tanks; garbage disposal; general sanitation. Once a week; II.

Professor TALBOT

# MUSIC

CHARLES HENRY MILLS, D.Mus., F.R.C.O., Director, Professor
GEORGE FOSS SCHWARTZ, A.M., M.B., Assistant Professor
Constance Barlow-Smith, Instructor, Sight-Singing, Ear Training,
Public School Music

HENRI JACOBUS VAN DEN BERG, Instructor, Piano

Albert Austin Harding, Instructor, Band Instruments, Director of the Band

LOIS DERWENTWATER MCCOBB, Instructor, Voice
FLORENCE MARY KIRKUP, Instructor, Voice
McElroy Johnston, Instructor, Voice
Edna Almeda Treat, Mus.B., Instructor, Piano
Edson Wilfred Morphy, Instructor, Violin
Lowell Leslie Townsend, A.M., Instructor, Piano

- I. HISTORY OF MUSIC.—The development of music; the rise of polyphony and dramatic music; the origin and progress of the oratorio; the evolution of instruments and instrumental forms; the lives of composers. Lectures; assigned collateral readings. *I, II;* (2).

  Assistant Professor Schwartz
  - ia. Acoustics.—I, or II; (2). Professor Mills
  - 2. HARMONY.—I, II; (2). Assistant Professor Schwartz

3. Advanced Harmony.—I, II; (3).

Assistant Professor Schwartz

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4. Counterpoint, Canon, and Fugue.—I, II; (3).

Professor Mills

<sup>1</sup>5. GENERAL THEORY, FREE COMPOSITION.—I, II; (2½).

Professor Mills

# PIANO2

Professor Mills, Mr. Van den Berg, Miss Treat. Mr. Townsend

- 6a, 6b, 6c. Preparatory Course: Three Years.—Special attention is given to the formation of a correct touch and technique, and to intelligence in interpretation. In the examination at the conclusion of the course students are required to play: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerny, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. *I, II*; no collegiate credit.
- 7. First Year.—Development of technique; Czerny, Op. 229. Bks. 3, 4; Bach, Two-part Inventions; sonatas of Haydn and Mozart; easier sonatas of Beethoven; Mendelssohn, Songs Without Words; compositions (smaller works) of Schubert, Raff, Grieg, Chaminade, Moszkowski, and others. I, II; (6).
- 7a. One Year.—The first year's work in piano taken as a minor subject by collegiate students majoring in voice or violin. I, II; (2).
- 8. Second Year.—Czerny, Op. 740; Pacher, Octave Studies; Bach, Three-part Inventions. selections from French Suites; sonatas and other compositions of Scarlatti, Beethoven, Schubert, Schumann, Mendelssohn, Weber, Raff, Rubinstein, Saint Saens, Godard, MacDowell, and others. I, II; (6).
- 9. Third Year.—Selections: Clementi, Gradus ad Parnassum; Moscheles, Op. 70; Kullak, Seven Octave Studies, Bk. 2; Bach, Well-Tempered Clavichord; sonatas and concertos by Mendelssohn, Weber, Beethoven, Hummel; selections from works of Bach, Chopin, Schubert, Schumann, Brassin, Rubinstein, Liszt, Moszkowski, Scharwenka, and other modern composers. I, II; (7).
- 10. Fourth Year.—Selections: Octave Studies; Clementi, Gradus, continued; Bach, Well-Tempered Clavichord, continued; Chopin, Henselt, Etudes, etc.; sonatas by Beethoven and selections from works of modern composers of most advanced grade. I, II; (8).

<sup>&</sup>lt;sup>1</sup> Music 5, I, may be taken with Course 4, II, if desired.

<sup>&</sup>lt;sup>2</sup> Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

## Voice\*

# Mr. Johnston, Miss McCobb, Miss Kirkup

11a, 11b, 11c. Preparatory Course: Three years. The fundamental principles of voice culture, viz., correct breathing and the proper placing of the voice. In the examination at the conclusion of the course students are required to sing: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. I, II; no collegiate credit.

- 12. First Year.—Tone Production. Panofka: Op. 85. Concone: Op. 10, 17; Spicker: Masterpieces of Vocalization, Book I or substitute. Selected songs from Schubert, Franz, Greig, and modern composers. I, II; (6).
- 12a. One Year.—The first year's work in voice taken as a minor subject by collegiate students majoring in piano or violin. I, II; (2).
- 13. Second Year.—Tone Production. Vaccai: Practical Method; Panofka: Op. 81. Spicker: Book II; Panseron: Bordogni; Songs from German, French, Italian, and modern composers.
- 14. Third Year.—Tone Production. Spicker: Book III; Lamperti; Lablache; simple arias from opera and oratorios; selected songs. I, II; (7).
- 15. Fourth Year.—Tone Production. Spicker: Book IV. Ravini; Rubini; selected songs, opera, and oratorios. I, II; (3).

Note.—The above list will be supplemented by excerpts from modern composers—especially the modern American school—during the entire course.

# VIOLIN\*

# Mr. Morphy

16a, 16b, 16c. Preparatory course: Three years. In the examination at the conclusion of the course the students are required to play: Gordon's Fountain Studies; Hermann's Scale Studies; Wohlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel, Duet; selections from Weiss and Blumensteugel; miscellaneous pieces by Dancla, Papini, Weidig, Sitt, etc. I, II; no collegiate credit.

17. First Year.—Scales and Arpeggios through the seventh position; Kreutzer Studies; David Violin School (advanced) Mozart

<sup>\*</sup> Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

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Sonatas, Nos. 5, 7, 8, 12, and 17; Concertos, Viotti, Kreutzer. I. II; (6).

17a. One year.—The first year's work in violin taken as a minor subject by collegiate students majoring in piano or voice. I, II; (2).

- 18. Second Year.—Kreutzer Studies: Meerts' Mechanism of the Violin (advanced); Beethoven, Sonatas, Nos. 1, 5, 6. Concertos, Rode. Andante and rondo Capriccio David. I, II; (6).
- 19. Third Year.—Sevcik Studies; Fiorillo and Rode Studies (selected); Sonatas, Greig Op. 8, Gade; Concertos; No. 2. Mozart A, E flat. I, II; (7).
- 20. Fourth Year.—Gavinies Studies; Dancla Studies Op. 73; Sonatas, Grieg Op. 43, Braems 78; Concertos, Mendelssohn, Bruch, etc. I, II; (8).

# VIOLONCELLO\*

# Assistant Professor Schwartz

31a, 31b, 31c. Preparatory Course: Three years. At the conclusion of the course the student will be examined upon the following: DeSwert, Cello Method; Klengel, Technical Studies; Litolff, Volkslieder Album, two parts; Marx Markus, Op. 40; characteristic pieces. I, II; no collegiate credit.

- 32. First Year.—Dotzanert, Selected Studies; Furino, Polonaise; Golterman, Nocturnes; Kengel, Concertino. Op. 7. I, II; (6).
- 33. Second Year.—Lee Studies: Op. 31, No. 1; Romberg, Op. 42, 46, 65; Golterman, Concerto in G. I. II; (6).
- 34. Third Year.—Lee Studies: Op. 31. No. 2; Golterman, Concerto in D: Klengel, Concertstück in D. I. II: (7).
- 21. UNIVERSITY ORCHESTRA.—Two-hour rehearsal once a week. I, II; (1). Professor MILLS
- 22. UNIVERSITY CHORAL SOCIETY.—One-hour rehearsal once a week. I, II;  $(\frac{1}{2})$ . Professor MILLS
- 23. EAR TRAINING.—Two hours a week for two years; required of all music students, except students in the course in Public School Music (see Music 23a). I, II; (1, second year).

Mrs. Constance Barlow Smith

23a. EAR TRAINING.—Four hours a week for one year; required of students in the course in Public School Music. Theory and practice teaching. *I*, *II*; (1). Mrs. Constance Barlow Smith

<sup>\*</sup> Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

24. SIGHT SINGING.—Two hours a week for two years; required of all music students, except students in the course in Public School Music (see Music 24a). I, II; (1, second year).

Mrs. Constance Barlow Smith

24a. Sight Singing.—Four hours a week for one year; required of students in the course in Public School Music. Theory and practice teaching. I, II; (1). Mrs. Constance Barlow Smith

25. METHODS OF TEACHING.—Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school (Offered primarily for students who desire to teach music successfully in the public schools.) I, II; (4).

Mrs. Constance Barlow Smith

- 26. BAND INSTRUMENTS.—Band, orchestra, or solo work. I. II; no credit.

  Mr. A. A. Harding
- 27. Ensemble Class.—Trios, Quartets, and Quintets by classical and modern composers. (Open to all students who are sufficiently advanced to undertake the course profitably.) *I*, *II*; no credit.

# PALEONTOLOGY

(See Geology 1a, 16, 18, 19, 20, 21.)

# PHILOLOGY

(See The Classics, English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

# PHILOSOPHY

(See also Psychology and Education.)

ARTHUR HILL DANIELS, Ph.D., Professor BOYD HENRY BODE, Ph.D., Professor QUEEN LOIS SHEPHERD, A.M., Assistant

#### Honors

Candidates for honors in philosophy must offer:

- 1. In the major subject, 24 hours, 6 of which must be in psychology.
- 2. Minors in either: psychology (at least 6 hours in addition to the amount of psychology required for the major) and any one

other subject listed below; or any two subjects from the same group—

- (a) Economics; history, political science; education; sociology.
- (b) English; French; German; Greek; Latin.
- (c) Botany; chemistry; mathematics; physics; zoology.

No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

Students who make philosophy a major should take at least one year of psychology. With the exception of 1 and 10, no course in philosophy may be taken before the completion of two years of university work.

Logic.—The principles of reasoning; detection of fallacies;
 evidence. I; (3).
 Professor Bode, Miss Shepherd

Prerequisite: One year of university work.

ib. Logic.—(The same as i.) II; (3).

Professor Bode, Miss Shepherd

- 2. Introduction to Philosophy.—The relation of philosophy to modern science; problems of philosophy; representative forms of philosophic theory. II; (3).

  Professor Bode
- 3. Ancient and Medieval Philosophy.—The development of speculative thought; Greek philosophers; the medieval period. *I*; (3).

  Professor Daniels

Prerequisite: Three hours in philosophy.

4. Modern Philosophy.—Problems and conceptions in philosophy from Descartes to the present time. Selections from the masterpieces of this period. II; (3).

Professor Daniels

Prerequisite: Philosophy 3.

7. Ethics.—The beginnings and growth of morality; leading conceptions of moral theory; typical social and economic problems of the present. II; (3).

Professor Daniels

Prerequisite: Three hours in philosophy.

[8. Esthetics.—The appreciation of art and nature; place of such appreciation in life; primitive arts and appreciation; modifications of the esthetic (such as the sublime and the ugly); the fine arts. I; (3). Not given in 1912-13.

Prerequisite: An elementary course in philosophy or psychology.]

9. POLITICAL AND SOCIAL ETHICS.—Moral principles applied to political and social relations. *I*: (2). Professor Daniels

[10. THE PHILOSOPHIC THOUGHT OF THE NINETEENTH CENTURY AS REFLECTED IN ENGLISH LITERATURE.—Wordsworth; Carlyle; Emerson; Tennyson; Browning; Arnold. I; (2). Not given in 1912-13. Professor Bode]

[11. HISTORY AND PHILOSOPHY OF RELIGION.—The philosophical interpretation of religious consciousness; various religious concepts: God; revelation; inspiration, dogma; faith; prayer; immortality; evil; morality and religion. *I*, *II*; (2). Not given in 1912-13.

Professor Daniels

Prerequisite: Senior or graduate standing; six hours in psychology, philosophy, or both.]

15. The British Philosophers of the Eighteenth Century.—Locke, Berkeley, and Hume. I; (3). Professor Bode

Prerequisite: Philosophy 2 or 3 or 4.

16. American Philosophy.—II; (3). Professor Bode

Prerequisite: Philosophy 15.

#### COURSES FOR GRADUATES

Every student entering upon graduate work in philosophy must have had a thorough general course in the history of philosophy, a course in logic, and a general course in psychology.

[101. The Philosophy of Plato and Aristotle.—Twice a week; I, II. Not given in 1912-13. Professor Daniels]

102. Seminar: Contemporary Philosophy.—Present day idealism, realism, and pragmatism. Twice a week; I, II. Professor Bode

[103. Seminar: Ethical Theory.—Once a week; I, II. Not given in 1912-13. Professor Daniels]

104. The Philosophy of Descartes, Spinoza, and Leibniz.—
Twice a week; I. Professor Daniels

105. The Philosophy of Schopenhauer and Lotze.—Twice a week; II. Professor Daniels

# PHYSICAL TRAINING

# FOR MEN

GEORGE A HUFF, Director
HARRY LOVERING GILL, Assistant Director, Instructor, Track
LEO GREGORY HANA, Director, Men's Gymnasium
EDWARD JOHN MANLEY, Instructor, Swimming
ROY NEWTON FARGO, B.S., Assistant
RALPH JONES, Assistant

I. GYMNASIUM PRACTICE.—Two hours' gymnasium drill each week. (Required of freshmen.) I, II; (1); arrange time.

Mr. HANA

- 1a. Personal Hygiene.—Six lectures. Required in conjunction with Physical Training 1. I. Dean CLARK
- 2. Gymnasium Practice.—Two hours each week in advanced heavy apparatus work. I, II; arrange time. Mr. Hana

#### FOR WOMEN

GERTRUDE EVELYN MOULTON, A.B., Director MARY EDITH WILLIAMS, A.M., Instructor VERNA BROOKS, A.B., Assistant MARION CHARLOTTE LANDEE, Assistant ROSA-LEE GAUT, B.Mus., Pianist

7. PRACTICE.—Class work and games. (Required of freshmen.) I, II; (1).

Miss Moulton, Miss Williams, Miss Brooks, Miss Landee

- 8. Practice.—(Continuation of 7. Second year, elective.) I, II;
  (1). Miss Williams, Miss Brooks
  - HYGIENE.—(Required of all freshmen girls.) I; (1).
     Acting Dean FAWCETT
- IO. TEACHERS' COURSE.—Third year. Practice in the public schools, two hours; theory, one hour. I, II.

Miss Moulton, Miss Brooks

II. Teachers' Course.—Fourth year. Practice teaching in the gymnasium, two hours; theory, one hour. I, II.

Miss Williams, Miss Landee

#### **PHYSICS**

ALBERT PRUDEN CARMAN, D.Sc., Professor
CHARLES TOBIAS KNIPP, Ph.D., Assistant Professor
FLOYD ROWE WATSON, Ph.D., Assistant Professor
WILLIAM FREDERICK SCHULZ, E.E., Ph.D., Assistant Professor
JAKOB KUNZ, Ph.D., Assistant Professor, Mathematical Physics
ELMER HOWARD WILLIAMS, Ph.D., Associate
JOHN WESLEY HORNBECK, A.M., Instructor
GLENN ALFRED SHOOK, A.B., Instructor

ORRIN HAROLD SMITH, A.M., Assistant
LLOYD THEODORE JONES, A.M., Assistant
OSCAR ALAN RANDOLPH, B.S., Assistant
EARLE HORACE WARNER, A.B., Part-time Assistant
WILLIAM HARRY BAIR, B.S., Part-time Assistant

#### INTRODUCTORY COURSES FOR UNDERGRADUATES

I. GENERAL PHYSICS.—Lectures with class-room demonstrations; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) I; (3). II; (2).

Professor Carman, Assistant Professor Schulz, Mr. Hornbeck Mr. Shook, Mr. Jones, Mr. Warner, Mr. Bair

Prerequisite: Mathematics 3 or 4; registration in Physics 3.

3. Physical Measurements.—Laboratory experiments; quizzes in connection with Physics 1. I, II; (2).

Assistant Professor Schulz, Mr. Hornbeck, Mr. Shook, Mr.

Jones, Mr. Warner, Mr. Bair *Prerequisite:* See Physics 1.

2a. General Physics.—Lectures, with class-room demonstrations; recitations. (For students in courses in arts and science.) I, II; (2½). Assistant Professor Watson, Dr. Williams

Prerequisite: Completion of or registration in Mathematics 3 or 4; registration in Physics 2b.

2b. Introductory Laboratory Physics.—Physical measurements. I, II; (2½). Dr. Williams

Prerequisite: See Physics 2a.

15. Electricity and Magnetism.—Laboratory; lectures; assigned readings; reports. *I*, *II*; (2).

Assistant Professor Knipp, Mr. Smith

Prerequisite: Physics 1, 3; or 2a, 2b.

16. HEAT.—I; (2). Assistant Professor WATSON Prerequisite: Physics 1, 3; or 2a, 2b.

17. Light.—Recitations; laboratory. Edser's Light. II; (2).
Assistant Professor Schulz

Prerequisite: Physics 1, 3; or 2a, 2b.

18. TEACHERS' COURSE.—I; (2). Assistant Professor WATSON Prerequisite: Physics 1, 3; or 2a, 2b.

#### ADVANCED COURSES FOR GRADUATES AND UNDERGRADUATES

4. ELECTRICAL AND MAGNETIC MEASUREMENTS.—Exact electrical and magnetic measurements with accompanying theory. Laboratory exercises; discussions; recitations. I, II; (2).

Assistant Professor Knipp, Mr. Smith, Mr. Randolph Prerequisite: Physics 1, 3; or 2a, 2b; Mathematics 7, 9.

14. MECHANICS AND ADVANCED GENERAL PHYSICS.—An introduction to theoretical physics involving the calculus. First semester: dynamics with a brief introduction to thermodynamics. Second semester: elementary mathematical theory of electricity and magnetism, with a brief introduction to theory of light. I, II; (3).

Assistant Professor Kunz

Prerequisite: A course in general physics, such as Physics 2a and 2b, or 1 and 3, and a course in calculus.

20a. Light.—Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. *I* or *II*; (2).

Assistant Professor Schulz

Prerequisite: Physics I, 3; or 2a, 2b; Mathematics 7, 9; or 8a. 2ob. Light.—Light measurements. Laboratory. I or II; (2 to 5).

Assistant Professor Schulz

Prerequisite: Physics 1, 3; or 2a, 2b; Physics 17 desired.

- 21. RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures illustrated by experiments. II; (1). Assistant Professor Knipp
  - 23. Sound.—Twice a week; II. Assistant Professor Watson
- 25. Heat.—II; (2). Assistant Professor Watson Prerequisite: Physics 1, 3; or 2a, 2b; Physics 16 advised.
- 29. ELECTRICAL OSCILLATIONS.—Oscillating currents of both low and high frequencies, with particular attention in the second semester to the theory to wave telegraphy and telephony. *I, II;* (3).

Professor CARMAN

Prerequisite: Physics 1, 3; Mathematics 7, 9.

30a. Introduction to Theoretical Electricity.—The phenomena with elementary calculus methods. Lectures; recitations; occasional demonstrations. Foster and Porter's Electricity and Magnetism; Thompson's Elements of Electricity and Magnetism. I, II; (2).

Assistant Professor KNIPP

30b. Electricity and Magnetism.—Electrical measurements; self and mutual induction; standardization and calibration work; electrical discharge through gases. *I or II*; (2 to 5). Dr. WILLIAMS

31. Special Problems in Advanced Physical Measurements.—(2 or 3).

Professor Carman, Assistant Professors Knipp, Watson, and Schulz Dr. Williams

#### COURSES FOR GRADUATES

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subject, mathematics or chemistry, has been strong and complete. He should also have a knowledge of French and German sufficient to use references in these languages. The courses named below are those open for candidates for the master's or doctor's degree. A large part of the last year's work of the candidate for the doctor's degree is investigational, along either the experimental or the theoretical side of physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory (courses 114, 125, 120, 104, 130), are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light, and electricity and magnetism (courses 15, 16, 17), may be offered by students making a minor in physics.

[121. RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures illustrated by experiments. Written reports giving original discussions of one or more of the topics discussed during the semester. Not given in 1912-13.

Assistant Professor Knipp]

123. Sound.—Lectures; recitations. Rayleigh's Sound, Auerbach's Akustik, and Barton's Sound. Twice a week; I, II.

Assistant Professor WATSON

124. CONDUCTION OF ELECTRICITY THROUGH GASES.—The electrical conductivity of gases; ions and ionisation; the effect of a magnetic field; the motion of ions; spark discharge; cathode rays; Roentgen rays; canal or positive rays; related phenomena of radioactivity. Lectures; discussions. Three times a week; I, II.

Assistant Professor KNIPP

126. Physics Colloquium.—Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems. Many of these papers

are on investigations in progress in the laboratory and experimental demonstrations are used. Attendance is expected of all the graduate students, though it is not registered except in the cases of those making special reports on original investigations. Once a week; I, II.

- 127. ELECTRON THEORY.—Seminar. The theories of the constitution of the atom; the phenomena of the emission and absorption spectra. (Of special interest to students in advanced chemistry.)

  Twice a week; II.

  Assistant Professor Kunz
- 131. Investigation of Special Problems.—Advanced laboratory or design and calculation. A problem worked out with the advice and direction of the instructor. Two to four times a week; I, II.

Professor CARMAN, Assistant Professors KNIPP, WATSON, SCHULZ, and KUNZ, Dr. WILLIAMS

- 132. MATHEMATICAL PHYSICS.—Special phases in theoretical physics.
- [(a) Dynamics.—First part: dynamics of a material system; determination of the center of gravity; of moment of inertia and of potentials. Second part: the principle of least action; Lagrange's equations; motions of the top and applications. Three times a week; I, II. Not given in 1912-13. Assistant Professor Kunz]
- (b) ELECTRODYNAMICS.—Lectures; collateral reading. Solution of problems from Jeans' Mathematical Theory of Electricity and Magnetism. The potential theory: spherical harmonics, conjugate functions, some theorems of the vector analysis; capacities, coefficients of self and mutual induction; theory of absolute electrical measurements; the condenser discharge with its application in wireless telegraphy; Maxwell's theory, with some applications in optics, such as the optical properties of metals; modifications of Maxwell's theory: the theory of relativity and the electromagnetic emission theory of light. (Continued in the following year in Physics 132d.)

  Assistant Professor Kunz

[(c) Thermodynamics.—Fundamental principles with applications to physical and chemical phenomena. Lectures; recitations.

Three times a week; I. II. Not given in 1912-13.

Assistant Professor Kunzl

[(d) Theory of Electrical Oscillations and Cylindrical Harmonics.—Electrical oscillations along parallel wires, the vibrations from a Hertz oscillator and from an antenna, the resonance phenomena between sending and receiving stations and the absorp-

tion of electrical waves; cylindrical harmonics used in problems of a vibrating membrane, of the conduction of heat and electricity through cylinders, and of electrical waves proceeding along wires. Twice a week; I, II. Not given in 1912-13.

Assistant Professor Kunz]

133. SEMINAR.—Three or five times a week; I, II.

Professor CARMAN, Assistant Professors KNIPP, WATSON,
SCHULZ, KUNZ

#### PHYSIOLOGY

WILLIAM EDWARD BURGE, Ph.D., Assistant Professor Otis Orin Stanley, M.S., M.D., Instructor JOSEPH HOWARD BEARD, A.M., M.D., Instructor

Of the courses outlined below, I and 2 are designed primarily for medical students, or for those intending to specialize in histology or physiology; course 4, for prospective teachers of high-school biology or students from other colleges desiring a course in general physiology; courses 3, 5, may be taken by seniors in the medical course and course 103 by graduate students.

The laboratory is equipped for the pursuance of research involving the use of apparatus necessary for physiological, histological, bacteriological, and chemical work.

- HISTOLOGY.—Fundamental mammalian tissues; microscopic anatomy of the organs. Lectures and laboratory. (Full medical credit in histology.) I; (5). Assistant Professor Burge, Dr. Beard Prerequisite: Physics 2a; Chemistry I, 2, 3, 5a, 9, 9c; Zoology 2, 3.
- 2. MAJOR COURSE.—Physiology of nerve and muscle; circulation; respiration; secretion; digestion; metabolism. Lectures and laboratory. (Full medical credit in physiology.) II; (10).

Assistant Professor Burge, Dr. Beard

Prerequisite: The same as for Physiology 1.

- 3. Undergraduate Thesis.—(For undergraduates who wish a thesis course.)
- 4. Minor Course.—Practical hygiene; teaching physiology in high schools. Lecture demonstrations; recitations; laboratory work. I; (5).

  Assistant Professor Burge, Dr. Beard

Prerequisite: Chemistry 1: Zoology 1.

5. Special Physiology.—(For advanced students who wish to take up a special line of work not specified in one of the other courses and not involving the preparation of a thesis.) Laboratory; conferences. *1*, *II*; (3 hours or more).

Assistant Professor Burge, Dr. Stanley, Dr. Beard Prerequisite: The consent of the head of the department.

6. Hygiene.—See Physical Training 9.

#### COURSE FOR GRADUATES

103. RESEARCH.

Assistant Professor Burge, Dr. Stanley, Dr. Beard III. Physiological Journal Club.—Meetings of the teaching staff of the department, the graduate students, and advanced undergraduates to discuss articles of interest in current journals. Each student is expected to report a paper about once in two months.

## POLITICAL SCIENCE

(See also Economics, History, and Sociology.)

JAMES WILFORD GARNER, Ph.D., Professor JOHN ARCHIBALD FAIRLIE, Ph.D., Professor WALTER FAIRLEIGH DODD, Ph.D., Assistant Professor JOHN MABRY MATHEWS, Ph.D., Associate

#### Honors

For honors in political science:

- 1. The major of 24 hours in political science may, with the consent of the department, include courses in constitutional history (History 4 and 14), political philosophy (Philosophy 5), or not exceeding 6 hours of Law.
- 2. One minor must be history, in which courses must be offered aggregating not less than 12 hours. The other minor may be economics, sociology, or philosophy, aggregating not less than 9 hours.
  - 3. A reading knowledge of one modern language is advised.

#### COURSES FOR UNDERGRADUATES

Courses I and 3 are intended to furnish a general survey of the field of national, state, and local government in the United States, and should be taken by all students who expect to specialize in political science.

I. American National Government.—Historical development, organization, powers, limitations, and practical working of national government in the United States.  $I_j$  (3).

Professor Garner, Dr. Mathews

Prerequisite: Thirty hours of university work.

3. STATE AND LOCAL GOVERNMENT.—Powers, obligations, and limitations of states in the Federal Union; formation and admission of states; development of state constitutions; organization of state and local government; political methods. (A continuation of course 1; may be taken independently). II; (3).

Professor GARNER, Dr. MATHEWS

Prerequisite: Thirty hours of university work.

16. GOVERNMENT OF ILLINOIS.—Constitutional development; organization and administration of state and local government; the legislature; the executive; the judiciary; state officers and institutions; county, town, and municipal government. II; (2).

Professor FAIRLIE

Prerequisite: Thirty hours of university work.

ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES (At least junior standing required)

4. Municipal Government.—The growth of cities; municipal organization and functions in the United States; the mayor and council; commission government; police, light, and water supply; city planning; urban transportation; municipal ownership and regulation of public utilities; charities; education. Lectures; assigned readings; reports. *I*; (3).

Professor Fairlie

Prerequisite: One course in political science or Economics 1.

5. Constitutional Law of the United States.—The judicial interpretation of the constitution of the United States; judicial power to declare laws unconstitutional; separation of governmental powers; relation between state and national governments; fundamental rights under the constitution (due process of law, contract); territories and dependencies; national powers with respect to taxation, commerce; jurisdiction of United States courts. *I*; (4).

Assistant Professor Dodd

Prerequisite: Political Science 1.

6. International Law.—The development of the law of nations; its nature, source, and present status; the equality of states; the doctrine of intervention; the laws of war and peace; the fight

and duties of neutrals; the arbitration movement. Lectures; assigned readings; reports. I; (3). Professor Garner

Prerequisite: Graduate or senior standing, or junior standing with 6 hours of history, 5 hours of political science.

[7. AMERICAN DIPLOMACY.—Genesis and present organization of the Department of State; the diplomatic service; the treaty making power; the methods and traditional principles of the foreign policy of the United States; historical review of the principal diplomatic controversies between the United States and foreign powers from the foundation of the government to the present time; the rise of the United States to the position of a world power. II; (3). Given in alternate years; not given in 1912-13. Dr. Mathews

Prerequisite: Junior standing and Political Science I or History al

tory 3.]

g. Principles of Jurisprudence.—The nature of law; historical development of Roman and English legal systems; English common law in the United States; sources of law and relation between statutes and judicial decisions; brief discussion of the various branches of law (crime, tort, contract) and their relation to one another. I; (3).

Assistant Professor Dodd

Prerequisite: Course I or its equivalent; junior standing.

10. ADMINISTRATIVE LAW IN THE UNITED STATES.—Separation of governmental powers and delegation of legislative power; federal and state administrative organizations; powers of administrative officers; methods of enforcing governmental commands; remedies of the individual against unlawful action of public officials (civil suit, criminal action, mandamus, injunction). II; (3).

Assistant Professor Dodd

Prerequisite: Course 5 and at least junior standing.

II. CONSTITUTIONAL ASPECTS OF SOCIAL AND INDUSTRIAL PROBLEMS.—The police power for the protection of the public safety, health, and welfare; constitutional limitations upon legislation concerning the public health and safety, the control of public service corporations and combinations of capital, and labor legislation. II; (3).

Assistant Professor Dodd

Prerequisite: Senior standing and at least 5 hours in political science; Political Science 5, or Economics 12 recommended.

12. NATIONAL ADMINISTRATION.—Administrative powers of the President and Congress; executive departments and administrative

services of the national government; judicial administration and the relation of the courts to the executive authorities. II; (3).

Professor FAIRLIE

Prerequisite: Political Science 1.

13. State Administration in the United States.—The administrative position of the governor, and the organization of the state administrative departments; state administrative disintegration and the influence of the diffusion of executive power upon the enforcement of state law; organization and powers of state boards, commissions, and quasi-judicial tribunals; tendencies toward centralization in the administration of taxation, education, and other state functions; methods of control over state administrative officers. *I*; (3).

Dr. MATHEWS

Prerequisite: Political Science 3 or its equivalent.

14. POLITICAL PARTIES AND METHODS.—Development of political parties; party organization and methods in the United States and Great Britain; recent legislation on primary elections and corrupt practices. *I*; (2). Professor Fairlie

Prerequisite: One course in political science.

18. World Politics.—The main currents of international politics in Europe since the Treaty of Berlin; the balance of power, the mutual relations and present grouping of the principal European states, and the extension of their interests in the Near and Far East; the colonial expansion of the United States since the Spanish War, and the present position of the United States as a world power. (Given in alternate years; course 7 will be given in its place in 1913-14.) II; (3).

Prerequisite: Junior standing and History 1; History 20 recom-

21. British Government.—Political institutions in the United Kingdom and the British possessions: the Crown; the Cabinet; the House of Commons; the House of Lords; the party system; the courts of law; local government; government in the Crown Colonies and the self-governing colonies; recent developments and proposed changes. (Open to graduate students and to seniors who have had six hours in political science.) *I*; (3).

Professor FAIRLIE

22. CONTINENTAL EUROPEAN GOVERNMENTS.—The national political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations;

methods of legislation and administration; constitutional guaranties for the protection of individual rights. (Open to graduate students and seniors who have had six hours in political science; History 20 recommended.) II; (3).

Professor Garner

28. Problems of Contemporary Politics.—The larger questions of present day politics, domestic and foreign; such as the initiative and the referendum; proportional representation; state socialism; universal suffrage; electoral reform; local self-government; judicial reform, parliamentary government, the Monroe Doctrine. Reports by individual members of the class and general discussion. II; (2).

Professor GARNER

Prerequisite: Senior or graduate standing.

[30. Law of Taxation.—Constitutional limitations upon the taxing power; legal rules governing the assessment and collection of taxes. II; (3). Not given in 1912-13.

Assistant Professor Dodd

Prerequisite: Political Science 5 or Economics 5.]

# COURSES FOR GRADUATES

of ancient, medieval, and modern political thought; political theories of Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, and others; evolution of American political ideas. II.

Professor GARNER

102. THE NATURE OF THE STATE.—The principles, methods, and relations of political science; the origin, nature, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions; principles of political organization. I.

Professor GARNER

103. SEMINAR IN POLITICAL SCIENCE AND PUBLIC LAW.—Special problems; reports; discussions and criticism. The research work of candidates who are writing theses is under the direction of some instructor, to whom they report frequently. I, II.

104. MUNICIPAL ADMINISTRATION.—Municipal organization and functions in the United States and Europe: the relations between city and state; local organization; political methods and reform movements; police and health administration; public works; municipal ownership; public regulation of public utilities. The topics vary from year to year. Lectures; reading; special reports. II.

Professor FAIRLIE

105. Special Topics in Constitutional Law of the United States.—Subject in 1912-13: judicial power over legislation. In succeeding years: (1) the development of federal power; (2) interstate commerce; (3) judicial interpretation of the Constitution of Illinois.

Assistant Professor Dodd

# **PSYCHOLOGY**

(See also PHILOSOPHY and EDUCATION.)

ISAAC MADISON BENTLEY, Ph.D., Professor ARTHUR HOWARD SUTHERLAND, Ph.D., Associate

Students who do major work in psychology should take a minimum of six hours in philosophy, four of which will be counted as a part of the total number of hours required for the major in psychology. The courses specially advised are Philosophy 3 and 4.

Psychology 1 and 2 offer a continuous course and cannot be taken separately for credit. These courses are the prerequisites for all further courses in psychology. No student may do graduate work in psychology without having had these two introductory courses and at least three credit hours in philosophy.

#### Honors

Candidates for honors in psychology must offer:

- 1. At least 24 semester hours in psychology, of which at least 6 shall be in the laboratory course and 6 in philosophy.
- 2. Two minors from the subjects listed below under groups (a) and (b). This selection must be so made that at least 15 hours shall be completed in some subjects taken from one of these groups, and at least 9 hours from some subject in the other of these groups.

These groups are as follows:

- (a) Physics; physiology; zoology.
- (b) Education; philosophy; sociology.

# COURSES FOR UNDERGRADUATES

I. Introduction to Psychology.—The standpoint and the methods of psychology; the simple processes, attention and perception; mental inheritance, habit, custom, and fashion. Lectures; sectional meetings. I; (3). Professor Bentley, Dr. Sutherland

Prerequisite: One year of university work.

2. Introduction to Psychology (Continued).—Emotive and volitional complexes; association, memory, action and thought; the

relations of psychology to the biological and the social sciences; comparative and genetic psychology, and the psychology of the abnormal; applications of psychology to the arts and professions. [By special arrangement, students whose grading in the course is high may elect, during the second semester (in addition to course 2), experimental work in the laboratory (See course 3, below). The completion of Courses 1 and 2, or equivalent work, is necessary to the election of more advanced subjects offered by the department.] II; (3).

Professor Bentley, Dr. Sutherland

- 3. LABORATORY PRACTICE.—Scientific method; classical experiments in the fields of sensation, affection, attention, and action. Laboratory practice; lectures; conferences; demonstrations. (Introductory to the pursuit of special problems and to psychological research.) I or II; (3). Professor Bentley, Dr. Sutherland
- 4. LABORATORY PRACTICE (Continued).—Experiments in memory, association, learning, and thought. (A part of the term may be devoted either to the metrical methods of psychophysics or to the solution of a small qualitative problem. II; (3).

Professor Bentley, Dr. Sutherland

#### COURSES FOR UNDERGRADUATES AND GRADUATES

6. Comparative Psychology.—Mind in the various animal forms; the psychological implications of the bionomic doctrine of descent; a comparison of human and animal minds; criticism of current literature. (Recommended to students who intend to do advanced work either in animal psychology or in the study of behavior.) I; (2).

Professor Bentley

Prerequisite: Psychology 1, 2.

9. Physiological Psychology.—The physiology and psychology of the central nervous system. Lectures; laboratory. I; (2).

Dr. SUTHERLAND

Prerequisite: Psychology 1, 2.

12. MINOR PROBLEMS.—The formulation of methods suitable to new problems, and the conduct of small investigations. (At the discretion of the department, studies in the current literature or the presentation of essays upon historical subjects may be substituted for laboratory problems.) I, II; (2-5).

Professor Bentley, Dr. Sutherland

Prerequisite: Psychology 1, 2, 3, 4.

# COURSES FOR GRADUATES

101. Research.—Advanced problems; theses offered for graduate degrees. I, II. Professor Bentley, Dr. Sutherland

102. Contemporary Literature.—Seminar meetings for the discussion of current topics considered in their historical setting. I, II.

Professor Bentley, Dr. Sutherland

II3. PSYCHOLOGY OF THE ABNORMAL.—Defects of sensation; illusions and hallucinations; automatisms, trance states and hypnosis; suggestion and dreams; the subconscious; defects of speech; defects of emotion and volition; defects of memory and association; obsessions and impulsions; genius and insanity; temperament and personality. II.

Dr. SUTHERLAND

# PUBLIC SPEAKING (See Rhetoric.)

# RAILWAY ENGINEERING

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Director, Professor Edward Charles Schmidt, M.E., Professor

John McBeath Snodgrass, B.S., Assistant Professor, Railway Mechanical Engineering

Alonzo Morris Buck, M.E., Assistant Professor, Railway Electrical Engineering

Franklin Wales Marquis, M.E., Associate

ARTHUR FRANCIS COMSTOCK, B.S., Instructor, Railway Civil Engineering

Railway Civil Engineering—Courses 31-50. Railway Electrical Engineering—Courses 61-65. Railway Mechanical Engineering—Courses 1-30.

#### RAILWAY MECHANICAL ENGINEERING

I. Locomotives.—The mechanics of the locomotive; problems relating to its operation; the engine and valve mechanism; counterbalancing; the determination of tractive effort; tonnage rating problems; the development of types. (The course is co-ordinated with courses 2 and 8.) I; (2).

Professor Schmidt

Prerequisite: Theoretical and Applied Mechanics 9; Mechanical Engineering 3, 15, 16.

2. Locomotive Design.—Calculations and designs of engine and

boiler details; current standards and proportions. Drafting room systems. I; (3).

Assistant Professor Snodgrass

Prerequisite: Mechanical Engineering 3, 4, 5, 15, 16; Theoretical and Applied Mechanics 9; registration in Railway Engineering 1.

3. Shops and Auxiliary Equipment.—The design and equipment of railway shops and roundhouses; their management and organization, supplemented by shop visits; water purifying plants and pumping stations; air-brake equipment. II; (2).

Assistant Professor SNODGRASS

Prerequisite: Mechanical Engineering 3, 4; Chemistry 1b or 1a.

4. Locomotive Performance.—Locomotive boiler and engine performance; the influence upon performance of combustion rate, steam pressure, speed, cut-off and other valve relations, compounding, and superheating. I; (2). Assistant Professor Snodgrass

Prerequisite: Theoretical and Applied Mechanics 8; Mechanical Engineering 3, 4, 5, 15, 16.

- 7. ADVANCED DESIGN.—Problems in locomotive and car design.

  II; (3). Professor Schmidt, Assistant Profesor Snodgrass

  Prerequisite: Railway Engineering 2.
- 8. Dynamometer Car Tests.—Investigation of train resistance and locomotive tractive effort, by the use of the railway test car in trains on the Illinois Central Railroad; discussion and exemplification of the application of the results to the determination of tonnage ratings. *I*; (2).

  Mr. Marquis

Prerequisite: Open to seniors in railway courses only.

10. SEMINAR.—Discussion of current topics and review of railway journals. Assigned topics and reports. I, II; (1).

Professor Schmidt, Assistant Professor Buck, Assistant Professor Snodgrass, Mr. Comstock

Prerequisite: Open to seniors in railway courses only.

II. RAILWAY TESTS.—Train resistance on steam roads and work with the electric test car. (For students in other departments of the College of Engineering.) II; (2).

Assistant Professor Buck, Assistant Professor Snodgrass, Mr. Marquis

Prerequisite: Mechanical Engineering 3; Electrical Engineering 6.

30. Thesis.—Independent solution of some problem or investigation of some subject. The thesis may consist of a design or of an original experimental investigation, or it may be the analysis and discussion of data already in existence. II; (3).

Professor Schmidt, Assistant Professor Buck, Assistant Professor Snodgrass, Mr. Comstock

#### RAILWAY CIVIL ENGINEERING

31. RAILWAY YARDS AND TERMINALS.—The theory and practice of the proper location of frogs and switches; the design of yards to insure efficiency of operation; the details of track construction. II; (3).

Mr. Comstock

Prerequisite: Civil Engineering 4.

32. RAILWAY STRUCTURES.—The details of railway structures; problems in original design. II; (2). Mr. Comstock

Prerequisite: Civil Engineering 4 and 5.

33. Economic Theory of Railway Location.—The influence of location upon the net earning power of a line of railway. I; (4).

Mr. Comstock

Prerequisite: Civil Engineering 4; Theoretical and Applied Mechanics 7, 8.

35. SIGNAL ENGINEERING.—The general arrangement of automatic block signals on single and double track lines; interlocking systems for terminals; details of construction and of operation. I; (1).

Mr. Comstock

Prerequisite: Civil Engineering 4.

50. Seminar.—Discussion of current topics; review of railway journals; assigned topics and reports. *I, II;* (1).

Professor Schmidt, Assistant Professor Snodgrass, Assistant Professor Buck, Mr. Comstock

#### RAILWAY ELECTRICAL ENGINEERING

61. Traction.—Electric railway equipment and practice. The work of the course is exemplified by the use of the electric test car owned by the department. (For students in electrical engineering or railway mechanical engineering.) II; (3).

Assistant Professor Buck

Prerequisite: Theoretical and Applied Mechanics 8; Electrical Engineering 16, 6; or 3, 24.

63. RAILWAY LABORATORY AND ROAD TESTS.—Electrical laboratory problems and electric car and dynamometer car tests to deter-

mine train resistance and power consumption for electric cars and steam trains. II; (3). Assistant Professor Buck

Prerequisite: Railway Engineering 64; Electrical Engineering 24.

64. ELECTRIC RAILWAY PRACTICE.—The types of electric railway systems and apparatus; the engineering problems met with in preliminary road location, in the selection of electrical equipment, and in its operation and maintenance. *I*; (3).

Assistant Professor Buck

Prerequisite: Theoretical and Applied Mechanics 8; Electrical Engineering 5 and 24.

65. Electric Railway Practice.—The problem of steam road electrification. II; (3). Assistant Professor Buck

Prerequisite: Railway Engineering 64.

#### COURSES FOR GRADUATES

Entrance upon graduate work in railway engineering presupposes the full undergraduate course in that subject.

102. LOCOMOTIVE DESIGN.—Modern practice concerning steam pressure, compounding, superheating. Director Goss

106. LOCOMOTIVE OPERATION.—Determination of train resistance and locomotive tractive effort; application of these and other matters in the establishment of tonnage ratings.

Professor Schmidt

108. ELECTRIC RAILWAY PRACTICE.—The design, selection, operation, and maintenance of electric railway equipment; central station, sub-station, rolling stock, and line equipment.

Assistant Professor Buck

TIO. RAILWAY LOCATION.—The effects of the location of a railway upon its earning capacity; the engineering and economic problems met with in original location, as well as in the relocation and reduction of grades of existing lines.

Mr. Comstock

# RHETORIC (See English.)

# ROMANCE LANGUAGES AND LITERATURE

THOMAS EDWARD OLIVER, Ph.D., Professor

DAVID HOBART CARNAHAN, Ph.D., Associate Professor, Chairman
JOHN DRISCOLL FITZ-GERALD, II, Ph.D., Assistant Professor
JEAN-BAPTISTE BECK, Ph.D., Assistant Professor
ARTHUR ROMEYN SEYMOUR, Ph.D., Associate

DAVID SIMON BLONDHEIM, Ph.D., Associate OLIN HARRIS MOORE, A.M., Instructor WILLIAM SAMUEL HENDRIX, A.M., Assistant INGEBRIGHT LILLEHEI, A.M., Assistant JAY KARL DITCHY, A.B., Assistant

# FRENCH

#### Honors

Candidates for honors in French must offer:

1. A major in French.

- 2. One minor of at least 12 hours in Latin. This is to be in addition to three years of high school Latin.
- 3. One minor of at least 10 hours in one of the following subjects: German, excluding German 1 and 3; Spanish, excluding Spanish 1; Italian; English literature, excluding English 1; history; philosophy.

#### COURSES FOR UNDERGRADUATES

I. ELEMENTARY COURSE.—Grammar; pronunciation; reading of simple modern authors; composition; conversation. *I, II;* (4). Professor OLIVER, Dr. BLONDHEIM, Mr. MOORE, Mr. HENDRIX,

Mr. Lillehei, Mr. Ditchy

2. Modern Prose, Poetry, and Drama.—Rapid reading of modern authors; advanced syntax and composition. I, II; (4).

Associate Professor Carnahan, Assistant Professor Fitz-Gerald, Dr. Blondheim, Mr. Moore

Prerequisite: French I.

3. Intermediate Prose Composition and Conversation.—Conducted entirely in French, giving facility in idiomatic expression in writing and speaking. Reading; themes; talks upon France and French life. I, II; (3).

Dr. Blondheim

Prerequisite: French 2.

Note: This course is required of those who expect the recommendation of the department to teach French.

4. Advanced Composition.—A continuation of French 3 with special emphasis upon advanced syntax. I, II; (2).

Assistant Professor BECK

Prerequisite: French 3.

22. MODERN NOVEL AND DRAMA.—The novel and drama in France

from the beginning of the nineteenth century to the present time. Lectures; reports on collateral reading. I, II; (2).

Dr. SEYMOUR

Prerequisite: French 2.

25. Course for Teachers.—The various methods of teaching French in this country and abroad; actual contact with class-room problems. *I*, *II*; (1).

Professor Oliver and other members of the department

Prerequisite: Twenty-four hours' credit in French.

28. Senior Thesis.—(Intended primarily for candidates for honors in French, but open to other seniors.) I; (2).

Associate Professor CARNAHAN

#### ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

10. GENERAL SURVEY OF FRENCH LITERATURE.—The literary masterpieces of France; the main currents of French literature from the beginning to the present time. *I*, *II*; (3).

Associate Professor CARNAHAN

Prerequisite: French 22 or 24.

23. French Poetry.—Lectures; reading; declamation; interpretation. (Conducted in French.) *I, II;* (3).

Assistant Professor Beck

Prerequisite: French 3, and 10 or 22 or 24.

24. Seventeenth and Eighteenth Centuries.—The greater masterpieces of the seventeenth and eighteenth centuries in France. I, II; (3).

Professor Oliver.

Prerequisite: French 2.

#### COURSES FOR GRADUATES

Before entering upon the study of the Romance languages for an advanced degree, the candidate should have had a total of at least thirty hours of college work in these languages. Eighteen of these hours must be in one of the three languages, French, Italian, or Spanish, but no candidate will be received who has not had at least twelve hours of French. In addition a candidate should have good training in Latin, and be able to read ordinary German prose.

102. OLD FRENCH READINGS.—First Semester: Chrétien de Troyes and the court epic. Second Semester: Readings from Marie de France, the prose chroniclers, and the dramatists of the middle ages. Twice a week; I, II.

Professor OLIVER

108. VULGAR LATIN AND MEDIEVAL LATIN.—The development of

the Latin language, spoken and written, from the earliest times to the Carolingian epoch. (Conducted in French.) Twice a week; I.

Assistant Professor Beck

109. HISTORY OF FRENCH LITERATURE IN THE MIDDLE AGES, FROM THE NINTH TO THE FOURTEENTH CENTURY.—(Conducted in French.)

Twice a week; II.

Assistant Professor Beck

[110. OLD PROVENCAL.—The language and literature. (Conducted in French.) Twice a week; I, II. Not given in 1912-13.

Assistant Professor Beck]

[112. Introduction to Romance Philology.—Phonology. Twice a week; I. Not given in 1912-13.

Assistant Professor Fitz-Geraldl

- 113. Introduction to Romance Philology.—Morphology. Twice a week; I.

  Assistant Professor Fitz-Gerald
- 115. French Literary Criticism.—History of criticism in antiquity and in the Italian Renaissance; the work of the principal French critics; the seventeenth and nineteenth centuries; development of classicism and romanticism. Once a week; I, II.

Dr. BLONDHEIM

125. SEMINAR.—Research in Old French literature. Twice a week; I, II. Associate Professor CARNAHAN

## ITALIAN

#### COURSES FOR UNDERGRADUATES

- r. Elementary Course.—Grammar; composition; conversation; reading of simple modern authors. I, II; (3). Mr. Moore Prerequisite: One year of university work in French, Spanish, or Latin.
- 2. LITERARY COURSE.—First semester: Rapid reading from the works of the Italian writers of the nineteenth century. Second semester: Dante; Petrarch; Boccaccio. I, II; (2). Mr. Moore Prerequisite: Italian I.

#### SPANISH

#### COURSES FOR UNDERGRADUATES

I. ELEMENTARY COURSE.—Grammar; pronunciation; easy reading; composition; conversation. I, II; (4).

Dr. Seymour, Mr. Hendrix, Mr. Ditchy

2. Conversation and Composition.—Conversation; composition;

reading of modern prose. The vocabulary of everyday life is emphasized. Commercial correspondence. *I, II;* (3). Dr. Seymour *Prerequisite:* Spanish 1.

3. General Introduction to Spanish Literature.—Rapid reading of selected works of representative modern authors, and of the more important writers of the seventeenth century. *I*, *II*; (2).

Mr. HENDRIX

Prerequisite: Spanish 1.

4. Advanced Conversation and Composition.—Commercial correspondence; reading of commercial Spanish. (Conducted in Spanish.) I; (2). Dr. Seymour

Prerequisite: Spanish 2.

# SCANDINAVIAN LANGUAGES AND LITERATURE (See GERMANIC LANGUAGES AND LITERATURE.)

# THE SOCIAL SCIENCES

(See Economics, History, Political Science, and Sociology.)

#### SOCIOLOGY

EDWARD CARY HAYES, Ph.D., Professor ARTHUR JAMES TODD, Ph.D., Associate

# Honors

For honors in sociology twenty-four hours in the major subject are required, including Sociology 1, 3, 8, and 9.

The minor subjects may be selected, with the approval of this department, from the following: history, economics, political science, philosophy, and psychology. All candidates must have taken elementary psychology.

#### COURSES FOR UNDERGRADUATES

1. The Principles of Sociology.—The method and the degree in which society molds the lives of its members; the nature of such social realities as customs, institutions, organizations, social classes, and castes; changes to which the social realities are subject, and their causes; the effects of geographic conditions, of the forms and distribution of property, of inherited and acquired traits of the population, and of prevalent social activities upon each other; order; progress. I; (3).

Professor Hayes

Prerequisite: Junior standing, including if possible the principles of economics and elementary psychology.

THE SOCIAL PROBLEMS OF THE RURAL COMMUNITY.—II; (2).
 Professor Hayes

Prerequisite: Junior standing.

ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

3. Social Evolution.—Modes of social activity among people at different stages of progress: savage, barbarous, and civilized; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts, as to the theory of social evolution and the method of progress. II; (3).

Professor HAYES

Prerequisite: Sociology 1.

[6. The Social Problems of the Urban Community.—II; (3). Not given in 1912-13. Professor Hayes

Prerequisite: Senior standing and Sociology 1.]

8. General Charities.—Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. *I*; (3).

Dr. Topp

Prerequisite: Junior standing and Sociology 1 or Economics 1.

9. Criminology.—Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. *II*; (3). Dr. Todd

Prerequisite: Senior standing.

10. Population.—Theories and policies of population; Malthus' Principle and its critics; problems in population of the United States; immigration, race-mixture, conditions affecting public health, deathrate, birth-rate, "race-suicide", marriage, divorce; selective influences at work on the "Population type". I; (3).

Dr. Todd

Prerequisite: Senior standing and Sociology I or Economics I.

II. Principles of Sociology.—Fundamental principles and main teachings of sociology, derived from a minute analysis and classification of the elements that make up the life of a people, types of change to which they are subject, and causes by which they are affected. I; (3). Professor HAYES

Prerequisite: Senior standing.

12. THE LABOR PROBLEM.—The same as Economics 12.

Prerequisite: Economics 1, 3; students who are taking sociology as a major and have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

[15. The Family.—Evolution of the family and marriage; education, moral, and political significance of the family at different stages of social development. II; (3). Not given in 1912-13.

Dr. Todd

Prerequisite: Primarily for graduates, but approved seniors who have had Sociology 1 or equivalent may be admitted; reading knowledge of French or German desirable.]

- 21. Socialism and Social Reform.—The same as Economics 21. Prerequisite: Economics 1, 3; students who are taking sociology as a major and have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.
- 26. Social Education.—Education as a factor in social progress; present day education policy and organization in the light of theoretical and applied sociology. II; (3).

  Dr. Todd

Prerequisite: Senior standing, and Sociology I or Psychology I or equivalent.

#### COURSES FOR GRADUATES

Graduate work in sociology presupposes training in the social sciences, at least in economics and history, and also in psychology. Candidates for the doctor's degree with sociology as the major subject will be expected to have taken some fundamental course in economics and in political science, such as Economics 101 or 122, and Political Science 102.

The graduate courses in this department are of two classes: Those of the first class deal with the principles of general sociology; these principles relate to the essential nature, methods of evolution, and types of determining causes, of customs, institutions, and the other social forms whether they serve economic, political or other purposes. The courses of the second class treat, in the light of the principles of general sociology, those practical social problems which lie outside the range of economics and politics.

The library has most of the standard works in general sociology by American, English, and European authorities, a collection of books on each of the various sociological problems, and an extensive list of periodicals. Special attention is given to ethnographic and anthropologic materials.

IOI. SOCIOLOGICAL METHOD.—The method of advancing the science of sociology; adaptability to sociological investigation of certain methods described in Pearson's Grammar of Science, Wundt's Methodenlehre, zweite abtheilung, Seignobos' La Méthode Historique

Appliquée aux Sciences Sociales, Bernheim's Historische Methode, Spencer's Study of Sociology, and Giddings' Inductive Sociology. Three times a week; I. Professor HAYES

THE DEVELOPMENT OF SOCIOLOGY.—Readings in the works of writers who have contributed most to the development of sociology; discussions; supplementary lectures. Arranged in a cycle of three years: first year, authors whose works can be read in English; second year, German authors; third year, mainly French writers. (Second year given in 1912-13.) One session, two hours, each week; I, II.

Professor Hayes

150. SEMINAR.—Three to six hours a week; I, II.

Professor HAYES

#### SPANISH

(See ROMANCE LANGUAGES AND LITERATURE.)

# VETERINARY SCIENCE

DONALD McIntosh, V.S., Professor

[2. VETERINARY MATERIA MEDICA.—All the agents used for the cure of disease and injury, and for the preservation of health among domestic animals. Lectures; text-books, inspection of specimens of drugs. *I*, *II*; (5). Not given in 1912-13.

Professor McIntosh]

4. Anatomy, Physiology, and Diseases of Domestic Animals.—The organs of mastication, digestion, respiration; circulation, and lymphatic system; the urinary organs; the skin. *I*; (5).

Professor McIntosh

- 5. Anatomy, Physiology, and Diseases of Domestic Animals.—The nervous system, bones, joints, feet, eye, and generative organs; epizootic and contagious diseases; catarrhal fever; pyemia; septicaemia; rheumatism; tuberculosis; fistula of the withers; poll-evil; wounds; internal parasites. II; (5). Professor McIntosh
- 6. CLINIC.—The free clinic is held every Saturday morning from ten to twelve o'clock. Animals are brought to be examined, operated upon, and prescribed for. This class is of signal benefit to the student as he has the opportunity of seeing the cases and of assisting in the work. I, II; (1).

  Professor McIntosh

Prerequisite: Registration in Veterinary Science 4 and 5.

# ZOOLOGY

(See also Entomology, Botany, and Physiology.)

HENRY BALDWIN WARD, Ph.D., Professor FRANK SMITH, A.M., Associate Professor CHARLES ZELENY, Ph.D., Associate Professor FREDERICK WALTON CARPENTER, Ph.D., Assistant Professor CHARLES CHRISTOPHER ADAMS, Ph.D., Associate ERNEST CARROLL FAUST, A.B., Research Assistant BESSIE ROSE GREEN. A.M., Assistant JOHN EARL GUTBERLET, A.M., Assistant HARLEY JONES VANCLEAVE, M.S., Assistant \*MARGARET WALLACE TAGGART, M.S., Graduate Assistant PANZY LOUISE BARGER. B.S., A.M., Graduate Assistant ROYAL GLENN HALL, A.B., Graduate Assistant RALPH HARLAN LINKINS, A.B., Graduate Assistant HORACE WESLEY STUNKARD, B.S., Graduate Assistant JUNE MAUD ASHLEY, A.B., Graduate Assistant \*\*ALICE DOROTHEA BROOKS, A.B., Graduate Assistant

Courses I and 2 constitute a general survey of the subject, involving a year's work, and form the best introduction to later work in zoology. In the second year, a student may choose as a line of work, either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technique (3) and current literature (20) are of value in all lines of work. Medical students should take courses 3 and 6 in the second year. Those preparing to teach zoology in the high school will find field zoology (16, 17) and ecology (9) of especial value, and should not overlook the importance of a course in general entomology.

The equipment of the department includes the usual apparatus, microscopes, micromes, paraffin baths, demonstration material, and reagents. The various special laboratories are equipped with special apparatus and demonstration material in accordance with their particular needs. Provision is made for meeting such special demands as may arise in connection with individual work.

<sup>\*</sup> Resigned Nov. 1st, 1912. \*\* From Nov. 1st, 1912.

The University Museum contains series of mounted vertebrates, of Ziegler embryological models, and of alcoholic material in all groups; these are available as needed for either teaching or research. The collections and library of the Illinois State Laboratory of Natural History are freely accessible to advanced students. They are rich in that which pertains to fresh-water biology. The private library and collections of the head of the department, which contain much material on invertebrate morphology and on parasitism, are also placed at the disposal of graduate students.

#### COURSES FOR GRADUATES

I. General Zoology.—Animal biology; general principles of structure; function and inter-relation of animal forms; origin and development of animal life; the simpler and best-established generalizations in zoological theory. Lectures; laboratory; quiz work. *I*, or *II*; (5).

Professor Ward, Associate Professor Zeleny, Dr. Adams, and

assistants

2. Vertebrate Zoology and Comparative Anatomy.—Classification of the Chordata; the early stages of vertebrate embryology; structure of vertebrate tissues; systems of organs considered in respect to their anatomy, function, ontogeny, and evolution in the vertebrate series; anatomical studies of selected types of the Chordata. Lectures; laboratory; quiz work. II; (5).

Assistant Professor CARPENTER

Prerequisite: Zoology 1.

16. FIELD ORNITHOLOGY.—The birds of the vicinity. Indentification; food relations; seasonal distribution; migration activities. (Students are advised to provide themselves with opera or field glasses.) Field work; lectures. II; (2).

Associate Professor Smith

19. Advanced Ornithology.—(Continuation of 16). Difficult groups of birds; economic and technical literature. I, II; (2 to 5).

Associate Professor SMITH

Prerequisite: Zoology 16 or equivalent.

#### COURSES FOR GRADUATES AND UNDERGRADUATES

3. MICROSCOPICAL TECHNIQUE AND GENERAL VERTEBRATE EMBRY-OLOGY.—Theory and practice of microscopical technique; vertebrate embryos in early stages of development; methods of fixation, embedding, section cutting, staining, and mounting; preparation of embryological material for use in introductory embryology. Lectures; laboratory. I; (3). Assistant Professor Carpenter

Prerequisite: Zoology 1, 2.

6. Vertebrate Organogeny.—Development of the organs of the vertebrate body. Lectures; assigned readings in a text-book of human embryology; laboratory studies on embryos of the chick and pig. (A continuation of Course 3; for medical students and others.) II; (3).

Assistant Professor Carpenter

Prerequisite: Zoology 1, 2, 3.

9. Animal Ecology.—The relation of animals to their natural environment; processes of change in environment and their influence upon animal life; the local fauna and the conditions under which it lives; methods of observation, making notes, and collections. Insects, mollusks, reptiles, amphibians, and fishes. Field work; laboratory; assigned reading; reports. II; (5).

Dr. ADAMS

Prerequisite: One year of zoology or two years of university work, including Zoology 1.

II. Principles of Zoogeography.—The geographic distribution of animals, particularly the faunas of North America and of Illinois; the fauna in its relation to the complete environment (climate, physiography, geology, vegetation) and from the standpoint of its origin and its dynamic relations. Lectures; laboratory work on maps; field excursions. *I*; (3 or 5).

Dr. Adams

Prerequisite: As in Zoology 9.

13. EXPERIMENTAL EMBRYOLOGY AND REGENERATION.—The factors concerned in individual development. Lectures; demonstrations. *I*; (2).

Associate Professor Zeleny

Prerequisite: Two years of university work, including one year in zoological courses.

13a. Experimental Embryology and Regeneration.—(Laboratory.)—Individual work on definite problems. I, II; (1 to 5).

Associate Professor ZELENY

Prerequisite: Two years of university work, including one year in zoological courses.

15. Variation and Heredity.—The factors of organic evolution; the principles of animal breeding; eugenics. Lectures and demonstrations. II; (2).

Associate Professor Zeleny

Prerequisite: Two years of university work, including one year in zoological courses.

15a. VARIATION AND HEREDITY.—(Laboratory.)—Individual work on definite problems. *I, II;* (1 to 5).

Associate Professor ZELENY

Prerequisite: Two years of university work, including one year in zoological courses.

17. FIELD ZOOLOGY.—The animal life of a restricted locality. Collection, preservation, and identification of various kinds of animals; observations on the habits and life histories of selected forms. I; (3).

Associate Professor Smith

Prerequisite: One year of zoology, or two years of university

work, including Zoology 1.

18. Advanced Field Zoology.—More restricted problems in connection with the local fauna; taxonomic or distributional problems. (A continuation of courses 16 and 17.) *I*, *II*; (3 to 5).

Associate Professor Smith

Prerequisite: Zoology 17.

7. Structure of the Central Nervous System of Vertebrates.—The more important anatomical and histological characters of the vertebrate brain and spinal cord; the grouping of neurones into functional systems with special reference to the higher vertebrates, including man. Lectures; demonstrations. I; (2).

Assistant Professor Carpenter

Prerequisite: One year of zoology.

29. ADVANCED ANIMAL ECOLOGY.—Special problems in ecology, distribution, and faunas, with reference to the interpretation of the relation between animals and their environments. Conferences; laboratory; field work. *I*, *II*; (2 to 5).

Prerequisite: Two years of university work, including Zoology I

and 9 or 11.

21. Introduction to Zoological Research.—Investigation of topics, usually repeating the work of earlier investigators; the morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. *I, II;* (2 to 5).

Professor WARD

Prerequisite: One year in zoological courses.

20. Current Literature.—Meetings of the instructors and advanced students of the department for the presentation and discussion of the results of recent zoological investigation. (Open to

all students of zoology; should be taken by those intending to graduate with a thesis.) I, II; (1).

Associate Professor Zeleny, Assistant Professor Carpenter Prerequisite: Three years of university work, including one year in zoology.

8. Thesis Investigation.—Individual work on assigned topics. I, II; (5).

Professor Ward, Associate Professor Smith, Associate Professor Zeleny, Assistant Professor Carpenter, Dr. Adams Prerequisite: Two years in zoological courses.

# COURSES FOR GRADUATES ONLY

Two years of undergraduate work in zoology are ordinarily presupposed for entering upon graduate study in the department. When the work is chosen for a minor the courses listed for graduates and undergraduates, to be acceptable, must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be valued on conference with the head of the department.

- 103. HISTOLOGY OF THE NERVOUS SYSTEM.—The nervous elements of invertebrates and vertebrates: their form, composition, and topographical relations; the evidence for and against the neurone theory of nervous structure. Conferences; assigned readings; laboratory. Twice a week; I, II.

  Assistant Professor CARPENTER
- 107. Parasitology.—Structure and life history of animal parasites; their relations to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. Twice a week; I, II. [Given in 1912-13 and in alternate years.]

Professor WARD

- II3. EXPERIMENTAL ZOOLOGY.—Assigned problems in experimental embryology, regeneration, variation, and heredity. Two to five times a week; I, II.

  Associate Professor Zeleny
- 117. FAUNISTIC ZOOLOGY.—Problems in taxonomy, distribution, and ecology; field work, conference, and lectures. This work is favored by a natural history survey of the State now in progress at the University; students have the advantage of the collections, library, apparatus, and operations of this survey. Twice a week; I, II.

  Associate Professor Smith, Dr. Adams

121. INDIVIDUAL RESEARCH COURSES .-

(a) Zoological problems. Professor WARD

(b) Faunistic and systematic zoology.

Associate Professor Smith

(c) Animal Ecology and Zoogeography. Dr. Adams

(d) Vertebrate Embryology. Assistant Professor Carpenter

(e) Structure and Development of the Nervous System.

Assistant Professor Carpenter

(f) Experimental Zoology. Associate Professor Zeleny

[127. Theories of Animal Phylogeny.—Relations of various groups of animals; significance of so-called intermediate forms; study of invertebrate larval forms and of theories of descent based on them. Lectures; assigned readings; laboratory. *I, II.* Given in 1913-14 and in alternate years.

Professor Ward

# PART IV AUXILIARY SCIENTIFIC BUREAUS

# THE AGRICULTURAL EXPERI-MENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

# STAFF

EUGENE DAVENPORT, M.Agr., LL.D., Director
CYRIL GEORGE HOPKINS, Ph.D., Vice-Director
STEPHEN ALFRED FORBES, Ph.D., Consulting Entomologist
Donald McIntosh, V.S., Consulting Veterinarian
HENRY LEWIS RIETZ, Ph.D., Statistician
BURT EARDLEY POWELL, Ph.D., Editor Agricultural Press Bulletins
Anna Cushman Glover, Assistant Secretary

CYRIL GEORGE HOPKINS, Ph.D., Chief, Agronomy and Chemistry

# In Agronomy

JEREMIAH GEORGE MOSIER, B.S., Chief, Soil Physics Louie Henrie Smith. Ph.D., Chief, Plant Breeding JAMES HARVEY PETTIT. Ph.D., Chief, Soil Fertility LEONARD HEGNAUER. B.S., Chief, Crop Production JEROME EDWARD READHIMER, B. S., Superintendent Soil Experiment Fields, with rank of Assistant Professor \*WILLIAM GEORGE ECKHARDT, B.S., Associate, Soil Fertility AXEL FERDINAND GUSTAFSON, M.S., Associate, Soil Physics ERNEST VAN ALSTINE, B.S., Associate, Chemistry JOSEPH PAUL AUMER. B.S., Associate, Chemistry ORA STANLEY FISHER, B.S., Associate, Soil Fertility CLARENCE CHESTER LOGAN, B.S., Associate, Soils Extension JAY BOARDMAN PARK, M.S., Associate, Plant Breeding SIDNEY VIEL HOLT, B.S., Associate, Soil Physics HAROLD WILSON STEWART, B.S., Associate, Soil Physics HENRY CLYDE WHEELER, B.S., Associate, Soil Physics GERTRUDE NIEDERMAN, B.S., Assistant, Chemistry JOHN EZRA WHITCHURCH, B.S., Associate, Soil Fertility

EZEKIEL EDWARD HOSKINS, B.S., Associate, Soil Fertility

<sup>\*</sup>On leave.

WILLIAM LEONIDOS BURLISON, M.S., Associate, Crop Production WARD HANSON SACHS, B.S., First Assistant, Chemistry WALTER BYRON GERNERT, Ph.D., First Assistant, Plant Breeding Albert Lemuel Whiting, Ph.D., First Assistant, Soil Biology Frederick Charles Bauer, B.S., First Assistant, Soil Fertility Frederick Martin William Wascher, B.S., Assistant, Soil Physics

FORREST ADDISON FISHER, B.S., Assistant, Soil Physics
FRANK WILLIAM GARRETT, B.S., Assistant, Soil Fertility
WILBUR ROY LEIGHTY, B.S., Assistant, Chemistry
ORR MILTON ALLYN, B.S., Assistant, Crop Production
ROBERT WILLIAM DICKENSON, B.S., Assistant, Soil Physics
CLIFFORD E WHEELOCK, B.S., Assistant, Soil Physics
JOHN WOODARD, B.S., Assistant, Soil Physics
ORAN KELLER, B.S., Assistant, Chemistry
LEO ROSS BINDING, B.S., Assistant, Chemistry

# In Animal Husbandry

HERBERT WINDSOR MUMFORD, B.S., Chief
HARRY SANDS GRINDLEY, D.Sc., Chief, Animal Husbandry
LOUIS DIXON HALL, M.S., Assistant Chief, Animal Husbandry
WALTER CASTELLA COFFEY, M.S., Assistant Chief, Sheep Husbandry

ARTHUR DONALDSON EMMETT, A.M., Assistant Chief, Animal Nutrition

EDWIN STANTON GOOD, M.S., Assistant Chief, Swine Husbandry John A Detlefsen, D.Sc., Assistant Chief, Genetics Henry Perly Rusk, M.S.A., First Assistant, Beef Cattle James Lloyd Edmonds, B.S., First Assistant, Horse Husbandry Harold Hanson Mitchell, B. S., Assistant, Chemistry Walter Edward Joseph, Ph.D., Assistant, Animal Husbandry William Herschel Smith, M.S., Assistant, Animal Husbandry Sleeter Bull, M.S., Assistant, Animal Nutrition Leonora Perry, A.B., B.L.S., Editorial Assistant Walter F Handschin, Assistant, Animal Husbandry John Jonathan Yoke, Assistant, Animal Husbandry Virgil Augustus Place, B.S., Assistant, Animal Husbandry Wilbur Jerome Carmichael, Assistant, Animal Husbandry Wilbur Jerome Carmichael, Assistant, Animal Husbandry John Richard Wells, B.S., Assistant, Animal Husbandry

# In Dairy Husbandry

WILBUR JOHN FRASER, M.S., Chief, Dairy Husbandry
NELSON WILLIAM HEPBURN, M.S., First Assistant, Dairy Manufactures

Walter Lee Gaines, M.S., Associate, Dairy Husbandry Royden Earl Brand, M.S., Associate, Dairy Husbandry Horatio Newton Parker, First Assistant, Municipal and Sanitary Dairying

JESSE MELANGTHON BARNHART, M.S., Assistant, Chemistry
LEROY LANG, M.S., Assistant, Dairy Manufactures
WILLIAM TRUMAN CRANDALL, B.S., Assistant, Milk Production
RAY STILLMAN HULCE, B.S., Assistant, Milk Production
OLIVER ARNOLD KELLER, B.S., Assistant, Dairy Manufactures
HARRISON AUGUST RUEHE, B.S., Assistant, Dairy Manufactures
FRANK ASHMORE PEARSON, B.S., Assistant, Dairy Husbandry
LESLIE M WAKELEY, B.S., Assistant, Dairy Ilusbandry
WILLIAM FIRTH WELLS, B.S., Assistant, Municipal Dairying

# In Horticulture

JOSEPH CULLEN BLAIR, M.S.A., Chief CHARLES SPENCER CRANDALL, M.S., Chief, Plant Breeding JOHN WILLIAM LLOYD, M.S.A., Chief, Olericulture HERMAN BERNARD DORNER, B.S., Assistant Chief, Floriculture BETHEL STEWART PICKETT, M.S., Assistant Chief, Pomology OSCAR S WATKINS, B.S., Assistant Chemist, Horticulture ERNEST WINFIELD BAILEY, M.S., Assistant, Plant Breeding ARNO H NEHRLING, Assistant, Floriculture WARREN ALBERT RUTH, M.S., Assistant, Horticultural Chemistry CHARLES ELMER DURST, B.S., Assistant, Olericulture THOMAS BREGGER, B.S., Assistant, Plant Breeding LAWRENCE EARL FOGLESONG, B.S., Assistant, Pomology ALFRED JOSEPH GUNDERSON, B.S., Assistant, Pomology SIMEON JAMES BOLE, A.M., Assistant, Plant Breeding FRED WEAVER MUNCIE, A.B., Assistant, Floriculture GEORGE L PELTIER, A.M., Assistant, Floricultural Pathology JOHN JOSEPH GARDNER, B.S.A., Assistant, Pomology JAMES HUTCHINSON, Assistant, Floriculture

# In Botany

JAMES THEOPHILUS BARRETT, Ph.D., Chief Assistant, Botany

By an act approved March 2, 1887, the national government appropriated \$15,000 per annum to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the Agricultural Experiment Station for Illinois was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The Federal grants to the Station have been supplemented by State appropriations, until its revenues have become larger than those of any other similar institution in the world.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement and the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Twenty to thirty fields and orchards are rented in various portions of the State for the study of local problems, and assistants are constantly on the road for the conduct of experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 50,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

# THE ENGINEERING EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

#### STAFF

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Director TRYGVE D YENSEN, M.S., Administrative Assistant THE HEADS OF THE DEPARTMENTS IN THE COLLEGE OF ENGINEERING

# SPECIAL INVESTIGATORS

HERBERT FISHER MOORE, M.M.E., Assistant Professor in the Department of Theoretical and Applied Mechanics

Duff Andrew Abrams, C.E., Associate in the Department of Theoretical and Applied Mechanics

Franklin Wales Marquis, M.E., Associate in the Department of Railway Engineering

David Ford McFarland, A.M., M.S., Ph.D., First Assistant in the Department of Chemistry

WILLIS APPLEFORD SLATER, M.S., C.E., First Assistant in the Department of Theoretical and Applied Mechanics

Trygve D Yensen, M.S., Assistant in the Department of Electrical Engineering

JOHN NICHOLAS VEDDER, A.M., Assistant in the Department of Mechanical Engineering

HAROLD HOUGHTON DUNN, B.S., Assistant in the Department of Railway Engineering

Alonzo Plumsted Kratz, M.S., Assistant in the Department of Mechanical Engineering

# RESEARCH FELLOWS

WILLARD CLARKE EELLS, B.S., Theoretical and Applied Mechanics HAROLD ALLEN HOUSTON, B.S., Railway Engineering MAYNE SEGUINE MASON, B.S., Electrical Engineering WILLIAM EARL MOSHER, M.E., Mechanical Engineering HARRY FIELDING HADLEY, A.M., Chemistry RUDOLPH McDermet, B.S., Electrical Engineering

GEORGE ALFRED MANEY, C.E., Theoretical and Applied Mechanics JOHN WILLIAM STOKES, B.S., Electrical Engineering HOWARD RICE THOMAS, C.E., Theoretical and Applied Mechanics WALTER JACOB WOHLENBERG, B.S., Mechanical Engineering

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country. The practical nature of the investigations and their adaptation to present-day needs are assured by means of conferences with committees of the leaders of the State's industrial activities.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time, sixty bulletins of value to engineering science have been published. The experiments have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams: stresses in chain links; extensions of the Dewey decimal system of classification; tests of electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal: thermal conductivity of fireclay: heat transmission: freight train resistance: tests of a suction gas producer: tests of concrete: reinforced concrete beams and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotive water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines: effects of cold weather upon train resistance and tonnage rating; and coking of coal at low temperatures.

# THE STATE LABORATORY OF NATURAL HISTORY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

# STAFF

Stephen Alfred Forbes, Ph.D., LL.D., Director
Charles Arthur Hart, Systematic Entomologist
Mary Jane Snyder, Secretary
Robert Earl Richardson, A.M., Assistant in charge of Biological
Station

In 1885 the General Assembly passed a bill transferring the State Laboratory of Natural History from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. Material of all classes has been collected in all part of the State, field observations and experiments have been conducted, extending over many years, and twelve volumes have been published in the form of bulletins and final reports.

The principal problem upon which the work of the survey is at present concentrated is that of the effect upon our aquatic biology of a pollution of our natural waters.

# THE STATE ENTOMOLOGIST'S OFFICE

# STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., State Entomologist
CHARLES ARTHUR HART, Systematic Entomologist
WESLEY PILLSBURY FLINT, Assistant for Central Illinois
LINDLEY MALCOLM SMITH, B.S., Assistant for Southern Illinois
DAVID KENT MACMILLAN, B.S., Assistant for Northern Illinois
PRESSLEY ADAMS GLENN, A.M., Chief Horticultural Inspector
ROBERT DOUGLAS GLASGOW, A.B., Special Assistant
S FRED PRINCE, Illustrator

The work of the State Entomologist's Office has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injuries to persons or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries, and to maintain a general supervision of the horticultural property of the State with respect to its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-seven reports have now been published by the Entomologist, fourteen of them since the transfer of his office to the University.

# THE STATE WATER SURVEY

EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT STAFF

EDWARD BARTOW, Ph.D., Director
OTTO RAHN, Ph.D., Consulting Bacteriologist
SAMUEL WILSON PARR, M.S., Consulting Chemist
ARTHUR NEWELL TALBOT, C.E., Consulting Engineer
PAUL HANSEN, B.S., Engineer
WILFRED FRANCIS LANGELIER, M.S., Inspector
HARRY PEACH CORSON, M.S., Chemist
RALPH HILSCHER, B.S., Assistant Engineer
WALTER G STROMQUIST, A.B., B.S., Assistant Engineer
MILFORD EVERETT HINDS, B.S., Assistant Chemist
FRED WILBUR TANNER, B.S., Assistant Bacteriologist
EDWARD EMIL HOLLMANN, B.S., Assistant Chemist
FLOYD WILLIAM MOHLMANN, B.S., Assistant Chemist
HARRY FOSTER FERGUSON, Assistant Engineer

A chemical survey of the waters of the State was begun in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. In 1911 the legislature imposed additional duties on the State Water Survey, authorizing the Water Survey to employ field men to inspect water supplies, water-sheds, etc., and to make, free of charge, sanitary examinations of water for citizens of Illinois, and made increased appropriations. The purpose of the Survey is to collect facts and data concerning the water supplies of the State; to make such chemical and biological examination and analyses as shall serve to demonstrate their sanitary condition; to determine standards of purity of drinking waters for the various sections of the State; to inspect water sheds and to make any investigations that will show best how to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes in every part of the State.

The Survey is a division of the department of chemistry of the University of Illinois, and special laboratories are equipped in the Chemistry Building for conducting the work. The engineering division is located in Engineering Hall.

# THE STATE GEOLOGICAL SURVEY

#### COMMISSION

GOVERNOR CHARLES S. DENEEN, Chairman PROFESSOR T. C. CHAMBERLAIN, Vice-Chairman PRESIDENT EDMUND JAMES JAMES, Secretary

### STAFF

FRANK WALBRIDGE DEWOLF, Director, Urbana

EDWARD BARTOW, Consulting Chemist in Water Analysis, University of Illinois, Urbana

ULYSSES S GRANT, Consulting Geologist in Lead and Zinc Studies, Northwestern University, Evanston

SAMUEL WILSON PARR, Consulting Chemist in Coal Investigations, University of Illinois, Urbana

CHARLES WESLEY ROLFE, Consulting Geologist in Clay Investigations, University of Illinois, Urbana

ALBERT VICTOR BLEININGER, Consulting Ceramist, U. S. Bureau of Standards, Pittsburgh, Pa.

ROLLIN D SALISBURY, Consulting Geologist in Preparation of Educational Series, University of Chicago, Chicago

FRED HALL KAY, Assistant State Geologist, Urbana

THOMAS EDMUND SAVAGE, Geologist, University of Illinois, Urbana

STUART WELLER, Geologist, University of Chicago, Chicago

GILBERT H CADY, Assistant Geologist, Urbana

RAYMOND SILLIMAN BLATCHLEY, Assistant Geologist, Urbana

E Wesley Shaw, Assistant Geologist in Co-operative Surveys, Urbana, Ill., and Washington, D. C.

JUSTA M LINDGREN, A.M., Chemist, Urbana

WILLIAM HENRY HERRON, Geographer in charge of Topographical Surveys, Urbana, Ill., and Washington, D. C.

The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of the State Geological Survey. The Survey is under the control of a Commission, of which the President of the University is an ex officio member.

The purpose of the Survey is primarily the study and exploration

of the mineral resources of Illinois. Field parties are organized for the investigation of oil, clay, coal, stone, artesian water, cement materials, and road materials, and for general scientific investigations. The Survey is charged also with the duty of making a complete topographical and geological survey of the State. The topographical surveys are now being carried on in cooperation with the United States Geological Survey. These will lead to the publication of a series of bulletins and maps, eventually covering the entire State.

The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to their reclamation. Work has been carried on in co-operation with the Rivers and Lakes Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kankaskia, Big Muddy, Little Wabash, Embarrass, Spoon, and Saline rivers. Reports have been issued on the Little Wabash and the Kaskaskia.

The laboratory work is done in connection with various department laboratories of the University. The equipment includes a working library, maps, and a growing collection, illustrating the geological and the economical resources of the State. Sixteen bulletins and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the College of Engineering on the one hand, and the United States Bureau of Mines on the other, a branch station has been located at Urbana for the demonstration of modern methods in mine-rescue work, and for the study of mining methods and mine wastes in Illinois. The station is equipped with breathing and resuscitation apparatus, electric safety lamps, and other devices by means of which it is possible to enter mines which may be filled with dangerous gases. The station is maintained, not as a permanent feature, but in an effort to demonstrate to the operators, miners, and mine inspectors the value of the apparatus and to encourage its general installation in the State.

A similar agreement by the above-named parties provides for a co-operative investigation of the Illinois coal mining industry. The Forty-seventh General Assembly made appropriations to carry on the work for two years See page 435.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY

Edmund Janes James, Ph.D., LL.D., President

# BOARD OF EXAMINERS

W. E. SEATREE, C.P.A., Chicago JOHN ALEXANDER COOPER, C.P.A., Chicago MARQUIS EATON, Chicago

# UNIVERSITY COMMITTEE

DAVID KINLEY, Chairman M. H. ROBINSON, Secretary CHARLES MAXWELL McCONN

By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in theory of accounts, commercial law, auditing, and practical accounting.

# OF ILLINOIS COAL PROBLEMS AND MINE RESCUE STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

# STAFF

College of Engineering-

WILLIAM FREEMAN MYRICK Goss, M.S., D.Eng., Dean

HARRY HARKNESS STOEK, B.S., E.M., Professor of Mining Enginneering

Stephen Osgood Andros, A.B., B.S., E.M., Mining Engineer and Field Assistant

Special Mining Engineers and Field Samplers

State Geological Survey-

Frank Walbridge DeWolf, B.S., Director, State Geological Survey Samuel W. Parr. M.S., Consulting Chemist

FRED HALL KAY, B.S., Assistant State Geologist

KESSACK DUKE WHITE, B.E.M., Assistant Geologist

JUSTA M. LINDGREN, A.M., Chemist

Special Geologists and Field Samplers

United States Bureau of Mines-

JOSEPH AUSTIN HOLMES, B.S., D.Sc., LL.D., Director, United States Bureau of Mines

ROBERT Y. WILLIAMS, A.B., E.M., Mining Engineer, U. S. Bureau of Mines, Urbana, Illinois

JAMES M. WEBB, Foreman, Urbana Mine Rescue Station

JOHN J. RUTLEDGE, E.M., Ph.D., Mining Engineer, studying the use of explosives

NELSON HORATIO DARTON, Geologist, studying occurences of gases in coal mines

Louis A. Scholl, B.S., Chemist, studying the explosibility of coal dust

The Department of Mining Engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are co-operating in the investigation of some of the problems conected with the mining of coal in the State of Illinois, under authority granted by the Forty-seventh General Assembly, for a period of two years.

This co-operative work is constructive as well as statistical, based upon accurate data and taking account of all existing conditions, to enable the operators and miners of the State to produce coal more safely, more cheaply, and with less waste.

A force of trained mining engineers, geologists, and chemists has been placed at the disposal of the coal industry of Illinois.

A Mine Explosion and Mine Rescue Station is maintained in Urbana by the United States, in co-operation with the State Geological Survey and the Department of Mining Engineering of the University of Illinois.

The purpose of this station is to interest all connected with the mining industry in the use of breathing and resuscitation apparatus in conection with rescue work in mines, as an aid in fighting mine fires, and in the opening of mines which have been sealed on account of fires. The station not only gives demonstrations, but undertakes to train men in the use of such apparatus, the service being rendered gratuitously, and, as far as possible, to all interested in the subject.

# PART V LIST OF STUDENTS, ETC.

(1912 - 1913)



# LIST OF STUDENTS

#### THE GRADUATE SCHOOL

Adler, Frederick Henry A.B. (Ohio State Univ.) 1909 A.M., 1911 Allen, Chester Harmon
A.B. (Lawrence Coll.) 1912
†Allison, Harry Orson
B.S., 1906 †Anderson, Clair Elmore B.S., 1911 Anderson, Isbella (Work for A.B. completed) Apgar, Leo Mahlon B.S., 1912 Ashley, June Maud A.B. (Univ. Colorado) 1912 A.B. (Univ. Colorado) 1912
Atwell, Ruth Sarah
B.S. (Northwestern Univ.) 1911
‡Austin, Clem C
B.S., 1907
Bagley, Glen David
B.S., 1912

B.S. (Kogaku-Tokugyoshi) 1905

Abe, Mikishi

Ackert, James Edward

A.B., 1909

†Bailey, Margaret Lewis A.B. (Cornell Univ.) 1903 A.M., 1910 Ph.D., 1912 Bair, William Harry B.S. (Ohio Northern Univ.) 1908 Baker, Robert Earl

A.B. (Univ. Oklahoma) 1912

Barger, Panzy Louise
B.S. (Tarkio Coll.) 1911
A.M., 1912

Barlow, Bronson
B.S. (Michigan Agr'l. Coll.) 1902

B.S. (Michigan April Coll.) 1902
Barto, Philip Stephan
A.B., 1906; A.M., 1910
Beattie, George Wilson
A.B. (Ripon Coll.) 1901
Becker, Albert J
B.S., M.E., (Univ. Michigan) 1903 1907

Bell, James Edgar B.S. (Univ. Chicago) 1905 Belting, Paul Everett

A.B., 1912

(SS)\* Ichinoseki, Japan
Theoretical and Applied Mechanics

(SS) Dixon Fellow in Zoology Chicago

> Fellow in German Appleton, Wisconsin Organic Chemistry Alpha Animal Husbandry Sumner Hill Electrical Engineering Prairie du Rocher Latin Elgin Electrical Engineering Boulder, Colo. Zoology Evanston Botany Chicago Mechanical Engineering Elgin Scholar in Electrical Engineer-Wellsboro, Pa.

> Travelling Fellow in German Canton Physics Norman, Oklahoma Chemistry Tarkio, Mo.

Zoology Greenville, Mich. Bacteriology (SS) Champaign

German Literature South Hartford, N. Y. SS

Education SS Grand Forks, N. D.
Theoretical and Applied Mechanics Urbana Chemistry

Urbana History

<sup>\*</sup>Attendance during both the Summer Session of 1912 and the regular session of 1912-13 is indicated by SS in parenthesis; during the Summer Session only, by SS. †On leave of absence.

<sup>‡</sup>Candidate for professional degree in engineering.

Biddle, Harry Clarence A.B. (Wabash Coll.) 1909 A.M. (Ohio State Univ.) 1912 Biester, Alice Briester, Ance A.B., 1912 Birney, Thomas Milton A.B., 1911 Block, Walter Robert B.S., 1907 Bole, Simeon James A.B. (Univ. Michigan) 1906 A.B. (Univ. Michigan) 1906 A.M., 1912 Boomsliter, George Paul B.S. (Michigan Agr. Coll.) 1906 Brigham, Reed O'Shea B.S. (Ohio State Univ.) 1912 Brooks, Alice Dorothea A.B. (Mount Holyoke Coll.) 1912 Brown, Hugh Alexander B.S., 1911 Brown, Robert Wesley
B.S., (Northwestern Univ.) 1911
Brumfiel, Daniel Milton
A.B. (Lombard Coll.) 1912 Brush, Elizabeth Parnham A.B. (Smith Coll.) 1909 A.B. (Smith Coll.) 1909
A.M., 1912
Bryant, John Myron
B.S., E.E. (Worcester Poly. Inst.)
1901, 1909
M.S., 1911
Buchen, Walther Albert
A.B. (Univ. Wisconsin) 1911
Burlison, William Leonidos
B.S. (Univ. Oklahoma) 1905
M.S., 1908
Burns, Josephine Elizabeth Burns, Josephine Elizabeth
A.B., 1909, A.M., 1911
\*Burt, Henry Jackson
B.S., 1896
Burton, Lawrence Vreeland
B.S., 1911 Buyers, Archie Stanton B.S., 1908 Carmichael, Berton Eugene B.S., 1905 Carscallen, George Ernest A.B. (Wabash Coll.) 1906 A.M., 1910

Case, Harold Clayton M
B.S., 1912
Chang, Luan
Graduate Tangshan Coll., China
Chang, Vun-din Chinzun
B.S., 1912
Chester, Ann
A.B., 1905
Chu, Vee Gih
(Work for B.S. completed)
†Clark, Darwin Orlando
A.B. (Prury Coll.) 1896

A.M., 1909

SS Urbana

Physiological Chemistry
Garden Prairie
Scholar in Household Science

SS Macomb
Education
Champaign
Agronomy
Champaign

Education
Grand Haven, Mich.
Civil Engineering
Toledo, Ohio
Botany
Haverhill, Mass.
Zoology
Urbana
Electrical Engineering
Chicago
Scholar in Geology
Connersville, Ind.
Scholar in Entomology
Boulder, Colo.

History Urbana

(SS) Electrical Engineering Montello, Wis.

English
(SS) Champaign

Agronomy
Macomb
Fellowship in Mathematics
Wilmette
Civil Engineering
Aurora
Physiological Chemistry
Sterling
Mechanical Engineering
Wooster, Ohio
Animal Husbandry
Frankfort, Ind.

Mathematics Urbana
Animal Husbandry
Canton, China
Civil Engineering
Shanghai, China
Agronomy
Champaign
English
Shanghai, China
Chemistry
Carthage, Mo.

History

<sup>\*</sup>Candidate for professional degree in engineering. †On leave of absence.

Clark, Fred Emerson A.B. (Albion Coll.) 1912 Clark, Karl Adolf A.B., A.M. (McMaster Univ.) 1910, 1912 Cobb, Margaret Vara A.B. (Radcliffe Coll.) 1910 \*Collins, Edgar Francis B.S., 1898 Collins, Vida Lucile A.B. (Univ. Michigan) 1907 A.M., 1910 Conel, Jesse Leroy
A.B. (James Millikin Univ.) 1912
Corson, Harry Peach
B.S. (New Hampshire Coll.) 1910, M.S., 1912 Cort, William Walter Cort, William Walter
A.B. (Colorado Coll.) 1909
A.M., 1911
Cox, Sidney Hayes
A.B. (Bates Coll.) 1911
Crandall, William Truman
B.S. (Milton Coll.) 1906
B.S.A. (Univ. Wisconsin) 1909
Cravens, Lucile Starr
A.B. (Lombard Coll.) 1909
A.M., 1911
Cunningham Harrison Edward Cunningham, Harrison Edward A.B. (Univ. Vermont) 1904 Davis, George William B.S. (Missouri Valley Coll.) 1911 B.S. (Missouri Valley Coll.)
Davis, Lloyd Hayes
A.B. (Wabash Coll.) 1911
Davis, Raymond Earl
B.S. (Univ. Maine) 1911
Davisson, Bert Stover
A.B. (Indiana Univ.) 1911
Deffendall, Prentice Hoover
A.B. (DePauw Univ.) 1906
Dept. Loha Adlus A.B. (DePauw Univ.) 1906
Dent, John Adlum
M.E. (Lehigh Univ.) 1905
Dibell, Mabel Elizabeth
A.B. (Western Coll.) 1910
Ditchy, Jay Karl
A.B. (Univ. Michigan) 1911
Douthitt, Herman
A.B. (Univ. Oklahoma) 1911
A.M. 1911 A.B. (Onto Orlandia) 1911
A.M., 1911
Dowell, Edward Samuel
A.B. (Oberlin Coll.) 1910
Dowrie, George William
A.B. (Lake Forest Coll.) 1911
A.M. (Univ. Chicago) 1907 A.B. (Lake Forest Coll.) 1911
A.M. (Univ. Chicago) 1907

Dutcher, Raymond Adams
B.S., M.S. (So. Dakota State Coll.) 7
1907, 1910
A.M. (Univ. Missouri) 1912

Edwards, Forrest Glen
A.B. (Lombard Coll.) 1907 Eells, Willard Clarke

Albion, Mich. Scholar in Economics Toronto, Ont.

Chemistry
Falls Church, Vo.
Fellow in Zoology
Schenectady, N. Y.
Electrical Engineering
Bear Lake, Mich.

English
Decatur
Scholar in Zoology
Laconia, N. H.

SS Colorado Springs, Colo.

Zoology Poland, N. Y. Scholar in English Urbana

Dairy Husbandry Kansas City, Mo.

Burlington, Vt.
English
S Marshall, Mo.
Physiological Cho

Latin

Physiological Chemistry
(SS) Crowfordsville, Ind.
Animal Chemistry
Windsor Mills, Quebec
Civil Engineering
New Richmond, Ind.
Chemistry

SS Taylorville
English
Champaign
Mechanical Engineering
Wolcott, Ind.
Botany
Cleveland, Ohio

French SS Sulphur, Oklo.

> Zoology Pleasin, Ohio Scholar in Political Science Pontiac

Economics Brookings, S. D.

Chemistry
Princeville
Chemistry
Mazon
Fellow in Theoretical and Applied Mechanics

B.S., 1911

<sup>\*</sup>On leave of absence.

Ekblaw, Karl John Theodore B.S., 1909 Ekblaw, Walter Elmer A.B., 1910; A.M., 1912 Elmer, Manuel Conrad B.S. (Northwestern Coll) 1911

A.M., 1912 Engle, Edgar Wallace
B.S. (Drury Coll.) 1912
Englis, Duane Taylor

A.B. (Eureka Coll.) 1912

Ensign, Newton Edward A.B. (McKendree Coll.) 1905 A.B. (Oxford Univ.) 1908

B.S., 1911
Erdahl, Absalom C
A.B. (St. Olaf Coll.) 1911
\*Erwin, John Frank
B.S., 1907
Eskelson, Ola Mattie Josephine

B.S. (Hedding Coll.) 1912 Fairhall, Lawrence Turner

B.S., 1911
Farwell, Stanley Prince
B.S., 1907, M.S., 1910
Fauquher, Silas Edgar
B.S. (Earlham Coll.) 1909
Faust, Ernest Carroll
A.B. (Obsrin, Coll.) 1914

A.B. (Oberlin Coll.) 1912 \*Fischer, Louis Engelmann B.S., 1898 Fisk, Ira William B.S., 1909

Flaningam, Miletus Lafayette
B.S. (Northwestern Univ.) 1904
Fleener, Frank Leslie
A.B. (Denison Univ.) 1912
Forrey, Edna Laura
A.B. (Heidelberg Univ.) 1906
A.M. (Miami Univ.) 1909
†Fowler, Chester Charles
B.S., 1909
Fracker, Stanley Black
A.B. (Buena Vista Coll.) 1910
M.S. (Iowa State Coll.) 1912
Gardner, John Joseph
B.S. (Mass. Agr'l Coll.) 1905
B.S. (Boston Univ.) 1912

B.S. (Boston Univ.) 1912

Geyer, Denton Loring A.B. (Univ. Wisconsin) 1910 Gillette, Clinton Edgar

B.S., M.S., (Cornell Coll.) 1910, 1911

Glasgow, Grace
B.S., M.S., 1912
Glasgow, Hugh
A.B., 1908
Glasgow, Robert Douglass

A.B., 1908 Glasgow, Ruth B.S., M.S., 1912

Architecture Rantoul Geology Naperville

Sociology Buffalo, Mo. Chemistry Eureka Scholar in Industrial Chemistry Altamont

Theoretical and Applied Mechanics Frost, Minn. Scandinavian Languages Moline Mechanical Engineering Abingdon Scholar in Mathematics DanvilleChemistry Chicago Electrical Engineering Evansville, Ind. Scholar in Botany Carthage, Mo. Zoology St. Louis, Mo. Civil Engineering Urbana Electrical Engineering Urbana (SS) Education Dodge Center, Minn.

Wawaka, Ind. Fellow in German Ames, Iowa Chemistry Storm Lake, Ia.

Geology

Scholar in Entomology Champaign

Pomology
Madison, Wis.
Fellow in Philosophy Lisbon, Ia. Inorganic Chemistry Tennessee Botany Tennessee Entomology Tennessee Entomology Tennessee Botany

<sup>\*</sup>Candidate for professional degree in engineering. †In absentia.

Goebel, Julius Ludwig, Jr. A.B., 1912 Gohn, Lloyd Elias (Work for A.B. completed) Gonnerman, Harrison Frederick B.S., 1908 Good, John Walter A.B. (Erskine Coll.) 1902 A.M. (Erskine Theological Sem.)
1904 B.D. (Allegheny Theological Sem.)
1905
Goodman, Byne Frances
A.B., 1912
Goodwin, Thomas Gregory
A.B. (Harvard Univ.) 1912
Graham, Sappho Cecelia
A.B. (Iowa State Coll.) 1911
Gray, Cora Emeline
B.S., M.S. (Univ. Chicago) 1906,
1909 Green, Bessie Rose
A.B., A.M., 1907, 1910
Geene, James Henry
B.S., 1908
Grimes, Ruby Mabel
A.B. (Yankton Coll.) 1911
Gross, Alfred William
Ph.B. (Northwestern Coll.) 1909
Gustafson, Charles LeRoy
B.S., 1912
Gutberlet, John Earl
A.B. (Bethany Coll.) 1909
A.M., 1911 1909 A.B., (Jernany Coll.) 1909 A.M., 1911 Gutsell, James Squier A.B., (Cornell Univ.) 1911 Gwinn, Alta A.B., 1907 A.B., 1907
Haan, Mary Anna
A.B., 1912
Hadley, Harry Fielding
A.B. (James Millikin Univ.) 1911
A.M., 1912
Hake, Harry Gray
B.S., M.S., 1907, 1910
Hall, Homer
A.B., 1912
Hall, Royal Glenn A.B., 1912
Hall, Royal Glenn
A.B. (Park Coll.) 1912
Hanford, Alfred Chester
A.B., 1912
Harbarger, Sada Annis
A.B. (Ohio State Univ.) 1906
A.M., 1909
Haughwont, Mary Rosalind
A.B., A.M. (Wilson Coll) 1894, 1903
†Haungs, Howard Charles
B.S., 1907
Heater, Elmer Franklin
B.S., 1911
Hebbert, Clarence Mark
B.S. (Otterbein Univ.) 1911

Urbana
Political Science
Rochester, Ind.
Education
Dixon
Theoretical and Applied Mechanics
Fayetteville, Tenn.

Fellow in English Literature
Champaign
Scholar in History
Jamaica Plain, Mass.
English
Cresten, Ia.
Scholar in German
W. Palm Beach, Fla.
Economics

Ivesdale
Zoology
SS Dubuque, Ia.
Animal Husbandry
Wagner, S. D.
Scholar in Mathematics
SS Monticello
Education
Boone, Ia.
Architecture
Hardy, Nebr.

Zoology Ithaca, N. Y.
\*Scholar in Zoology Urbana English Aurora Scholar in Latin Decatur

Fellow in Industrial Chemistry Urbana
Electrical Engineering
Belvidere
Scholar in English
Goodman, Mo.
Zoology
Carbondale
Scholar in Political Science
Columbus, Ohio

English
Belleville, Pa.
Botany
Peoria
Civil Engineering
Champaign
Electrical Engineering
Arvada, Wyoming
Mathematics

<sup>\*</sup>Resigned, Dec. 31, 1912. \*Candidate for professional degree in engineering.

Hedgcock, William Everett B.S., 1909 Heitkamp, George William A.B., (Univ. Wisconsin) 1912 Held, Felix Emil
A.B., A.M. (Emporia Coll.) 1902,
1908 Hendrix, William Samuel A.B. (Harvard Univ.) 1907, A.M., 1909 A.M. (Cornell Coll.) 1910 Hess, Raymond A.B., (Morningside Coll.) 1912 Heuse, Edward Otto B.S. (Hanover Coll.) 1900, M.S., 1907
Hewes, Charles Kay
B.S., 1912
Hill, Frank Ernest
A.B. (Stanford Univ.) 1911
Hill, William Griffith
A.B. (Carthage Coll.) 1912
Hinds, Milford Everett
A.B. (Northwestern Univ.) 1912
Hobart, Clyde Monroe
A.B., 1912
Holley, Charles Elmer
A.B., 1912
Hollinshead, Melvin Arthur 1907 Hollinshead, Melvin Arthur A.B. (Albion Coll.) 1911 Hollmann, Edward Emil B.S., 1912 Hornbeck, John Wesley B.S. (Illinois Wesleyan Univ.) 1906 A.M., 1909 Hornor, Nellie Nancy A.B., 1912
Houston, Harold Allen
B.S. (Purdue Univ.) 1911
Howard, Joseph Whitney
A.B. (Shurtleff Coll.) 1912
\*Howell, Leslie Dillon

B.S., 1907
Huber, Joseph Earl
B.S., 1912
Huenink, Henry Lawrence
A.B. (Carroll Coll.) 1911
Hulce, Ray Stillman
B.S.A. (Univ. Wisconsin) 1911
\*Ilg, George Martin Aloysius
B.S., 1909
Ingels, Nellie Louise
Ph.B. (Greenville Coll.) 1911 Ph.B. (Greenville Coll.) 1911 Inman, Austin Willis A.B., Ph.M. (Univ. Chicago) 1906,

1908 \*Iteland, Washington Parker B.S., 1903 Ivey, Paul Wesley

A.B. (Lawrence Coll.) 1912

Jahr, Marvin Edward A.B., (Univ. Wisconsin) 1905 James, Helen Dickson

A.B., 1910

German Literature Sylaconga, Ala.

Spanish (SS) Plover, Ia. Organic Chemistry Madison, Ind.

> Fellow in Physical Chemistry Quincy Organic Chemistry San Jose, Calif. English Larthage Scholar in English Peotone Chemistry Urbana Philosophy Franklin Grove Scholar in Education Port Clinton, Ohio English St. Louis, Mo. Chemistry Perry

Physics Danville Scholar in Physics Chicago Fellow in Railway Engineering Litchfield Scholar in Organic Chemistry Tacoma, Wash. Architectural Engineering Urbana Scholar in Civil Engineering Cedar Grove, Wis. Chemistry Whitewater, Wis. Dairy Husbandry Chicago Civil Engineering Greenville Mathematics

SS (SS) Fairbury

> History Sacramento, Calif. Civil Engineering Grayling, Mich.
> Scholar in Economics
> Neillsville, Wis. Agronomy Urbana German

SS Plymouth Agronomy Cuba. Wis. Physiography (SS) Emporia, Kan.

<sup>\*</sup>Candidate for professional degree in engineering.

James Leonard Vaughan B.S., 1906, M.S., 1912 \*Jensen, Joseph Norman B.S., 1906 Jinguji, Genjiro B.S., 1912 Johnson, Gertrude B.S., 1911 Jones, Lloyd Theodore A.B. (Lake Forest Coll.) 1909 M.S., 1912 Jordan, Harvey Herbert B.S. (Univ. Maine) 1910 Kaiser, John Boynton A.B. (Western Reserve Univ) 1908 B.L.S. (N. Y. State Library) 1910 Kamm, Oliver B.S., 1911 Keller, Oran B.S. (Rutgers Coll.) 1912 Kelso, Ruth
A.B., A.M., 1908, 1909
Kiernan, Arthur
Ph.B. (Brown Univ.) 1911 Ph.B. (Brown Univ.) 1911
Kiler, Aureka Belle
A.B., 1896
Kimball, Sidney Fiske
A.B., M.Arch. (Harvard Univ.)
1909, 1912
Kircher, Edward August Theodore
A.B., A.M., 1911, 1912
Kirkpatrick, Harold H A.B., 1897

Kiyohara, Ippei
B.S. (State Coll. Washington) 1911

Koenig, Henry Herman
B.S. (Univ. Wisconsin) 1912 Koons, Guy Jink
B.S., 1912
\*Korsmo, Amund Marius B.S., 1909 Kratz, Elwin Valentine B.S., 1912 Lamkey, Ernest Michael Rudolph (Work for A.B. completed)
Lawson, Edward Latan A.B., Ph.B. (Union Christian Coll.) 1901, 1902 Layng, Thomas Ernest A.B., A.M. (McMaster Univ.) 1909, 1912 Lehenbauer, Philip Augustus A.B. (Westminster Coll.) 1907 B.S. (Millikin Univ.) 1908 Leonard, Frank Bonner A.B., 1912 Lillehei, Ingebright L

Amboy
Electrical Engineering
Chicago
Civil Engineering
Choshi, Japan
Electrical Engineering
Chicago
Zoology
Raymond

Physics Waltham, Me.
Theoretical and Applied Mechanics
Urbana

Political Science
Highland
Chemistry
New Brunswick, N. J.
Chemistry
Escondido, Calif.
English
Providence, R. I.
Mathematics
Champaign
Education
Boston, Mass.

Architecture
Chicago
Fellow in Mathematics
SS Mayview
Education
Maka-Gun, Tokushima, Japan
Electrical Engineering
Champaign
Electrical Engineering
SS Murphysboro
Education
Oakley, Idaho
Civil Engineering
Champaign
Scholar in Architectural En-

Riverton
Botany
SS Moweaqua

gineering

Education Toronto, Canada

(SS) Hannibal, Mo.

Fellow in Botany
Metropolis
Economics
Minneapolis, Minn.

Scandinavian
Jacksonville
Zoology

A.B., A.M. (Univ. Minnesota) 1908,

A.B. (Illinois Coll) 1911

1909

Linkins, Ralph Harlan

<sup>\*</sup>Candidate for professional degree in engineering.

(SS)

Long, Walter Sterrett A.B., A.M. (Ohio Wesleyan Univ.) 1905, 1908 Loring, Frank Carlton
B.S. (Purdue Univ.) 1904
A.M. (Columbia Univ.) 1907
Ludwig, Clinton Albert B.S. (Purdue Univ.) 1912 Lutz, Gretchen Katherine

A.B. (Albion Coll.) 1909 McDermet, Rudolph B.S., 1912

Macdonald, Janet Malcolm A.B. (Morningside Coll.) 1910 McDowell, Samuel Kline
B.S. (Tri State Coll.) 1909
Macfarlane, Wallace
B.S. (Agr'l Coll. Utah) 1911 B.S. (Agr'l Coll. Utah) 1911
McGregor, Harold Hossack
A.B. (McMaster Univ.) 1910
M.S. (Univ. Louisville) 1912
McKinney, Henry Theodore
(Work for A.B. completed)
Mancy, George Alfred
B.S. (Univ. Minnesota) 1911

Martin, Oscar Ross A.B. (Central Wesleyan Coll.) 1907 Martz, Robert John
B.S. (Franklin Coll.) 1910
Mason, Mayne Seguine
B.S., 1911

Mathewson, Louis Clark A.B., A.M. (Albion Coll) 1910, 1911 A.M., 1912 \*Mesicoff, Joseph Albert B.S., 1899 Millard, Earl Bowman

A.B. (Univ. Colorado) 1910 A.M. (University Wisconsin) 1911 Millard, Floyd Hays B.S. (Univ. Colorado) 1910

M.S., 1912 Miller, J Earll A.B. (Univ. Kansas) 1910

A.B. (Univ. Nanas) 1910 LL.B., 1912 Miller, Roland Norton A.B. (Lawrence Univ.) 1911 Miller, Wilford Stanton A.B., A.M. (Indiana Univ.) 1910,

1911

Mitchell, Harold Hanson A.B., 1909 Mitchell, Karl Wilson

A.B. (Wittenberg Coll.) 1908

Mohlman, Floyd William
B.S., 1912
Moore, Laura M
A.B. (Indiana Univ.) 1910 Morris, Alice Elvira (Work for A.B. completed)

Mosher, Edna B.S. (Cornell Univ.) 1908

Urbana Chemistry

Marion, Ind.

Electrical Engineering Brookville, Ind. Botany Albion, Mich. Scholar in German Seattle, Wash. Fellow in Electrical Engineer-Fort Dodge, Iowa Scholar in Latin

Hoopeston Education Salt Lake City, Utah Fellow in Agronomy Ottawa, Canada

> Fellow in Chemistry Hudgens Education Minneapolis, Minnesota Fellow in Theoretical and Applied Mechanics Granite City Economics

> Fort Wayne, Indiana Chemistry Buda Fellow in Electrical Engineer-Macelona, Mich.

Fellow in Mathematics Milwaukee, Wis.
Mechanical Engineering Boulder, Colorado

Chemistry Boulder, Colorado

Civil Engineering Maysville, Kansas

Scholar in History Appleton, Wisconsin Organic Chemistry Champaign

Urbana Chemistry SS Georgetown, Ohio English literature Beardstown Chemistry

Psychology

SS Terre Haute, Indiana History ViolaEducation Kempt Shore, Nova Scotia Scholar in Entomology

<sup>\*</sup>Candidate for professional degree in engineering.

Mosher, William Earl Ph.B., M.E. (Syracuse Univ.) 1909. 1911 Muncie, Fred Weaver A.B. (Wabash Coll.) 1910 Myers, Lena Josephine (Work for A.B. completed) Nathanson, Jonas Bernard A.B. (Ohio State Univ.) 1912 Nevins, Joseph Allan A.B., 1912 Newell, Clyde Ross Ph.B., M.S. (Yale Univ.) 1910, 1912 Newlin, Charles Ivan B.S., 1912 Nickell, Lloyd Francis A.B., 1909 A.M., 1911 Niederman, Gertrude A.B., 1908 Noerenberg, Clarence Eugene B.S., 1907, A.E., 1909, A.B., 1910 Nottelmann, Rudolph Hans A.B. (Monmouth Coll.) 1912 Norbury, Frank Garm A.B. (Albion Coll.) 1912 Olin, Hubert Leonard
A.B. (Univ. Iowa) 1908
M.S., 1911 M.S., 1911
Olson, Peter John
B.S. (Colorado Agr'l Coll.) 1910
Orcutt, Alfred Walter
B.S. (Carleton Coll.) 1909
A.M. (Lake Forest Coll.) 1911
Ostrander, Mabel Verona
A.B., 1908
Ou, Hua Ching
A.B. (Peiyang Univ.) 1906
B.S., 1911
M.S., 1912
Owens, Albert W.
B.S. (Bucknell Univ.) 1909
Paine, Ellery Burton Paine, Ellery Burton
B.S., M.S., E.E., (Worcester Poly.
Inst.) 1897, 1898, 1904
Palmer, James Asbury
A.B., A.M. (Shutleff Coll) 1897, 1901 Parr, Rosalie Mary
A.B., 1906; A.M., 1911
Pearson, Frank A
B.S. (Cornell Univ.) 1912 Peine, Arthur Frederick A.B. (Illinois Wesleyan Univ.) 1911 Peltier, George
A.B. (Univ. Wisconsin) 1910
A.M. (Washington Univ.) 1912 A.B., B.L.S., 1908, 1909
Peters, William Warren
A.B., M.S., (Knox Coll.) 1911, 1912
Peterson, Alvah
B.S. (Knox Coll.) 1911
Pfeiffer, Benjamin Salisbury
B.S., 1912

Mechanicsville, N. Y.
Fellow in Mechanical Engineering
Paris
Chemistry
Urbana
English
Toledo, Ohio
Scholar in Physics
Camp Point
English
Milford, Conn.
Bacteriology
Indianapolis, Ind.
Animal Husbandry
Champaign

Fellow in Chemistry
Urbana
Chemistry
(SS) Highland Park
Education
Monmouth
Scholar in History
Springfield
Scholar in Chemistry
Tonkawa, Oklahoma

Chemistry
Grafton, N. Dakota
Agronomy
Lake Forest

SS Chicago
American History
Canton, China

Agronomy
Lewisburg, Penn.
Chemistry
Urbana

Electrical Engineering Clinton, Ky.

Greek
Mapleton
Botany
Beaver Falls, Pa.
Dairy Husbandry
Bloomington
Fellow in History
Grand Rapids, Mich.

Plant Pathology
Hackensack, N. J.
English
Hamilton
Electrical Engineering
Galesburg
Entomology
Peoria
Electrical Engineering

Pincomb, Helena Maude B.S. (Kansas Agr'l Coll.) 1901 Place, Vergil Augustus B.S. (Ohio State Univ.) 1912 Potter, Ralph Sydney A.B. (Lake Forest Coll.) 1909 M.S., 1911 Powers, Samuel Ralph A.B., 1912 Prince, David Chandler B.S., 1912 Randolph, Oscar Alan B.S. (Missouri School of Mines) Read, John William
B.S., M.S. (Univ. Missouri) 1907,
1908 1911 \*Reed, Susan M A.B. (Mt. Holyoke Coll.) 1907 A.M., 1908 Renich, Katherine Louise Renich, Katherine Louise
A.B., 1911
Renich, Mary Emma
A.B., 1911, A.M., 1912
Rhodes, Edward Melville
LL.B., B.S., 1900, 1912
Riley, Charles Frederick Curtis
A.B. (Univ. Michigan) 1905
M.S., 1912
Rinaker, Clarissa
A.B. (Blackburn Coll.) 1903
A.M., 1911 A.M., 1911 Rogers, Anna Sophie A.B., 1911
Rolfe, Mary Annette,
A.B., 1902
Rowland, Sidney Archie, Jr.
A.B. (Ouachita Coll.) 1907 Ruehe, Harrison August B.S., 1911 Rugg. Harold Ordway B.S., C.E. (Derimouth Coll.) 1908, 1909 Rutledge, George
A.B., 1910
Sayre, Rollo Clifton
B.S. (McKendree Coll.) 1909
Scherfee, Samuel Hawthorne A.B. (Stanford Univ.) 1909 A.B. (Stanford Own.) 1909
Schneider, Henry Frank
A.B. (Central Wesleyan Coll.) 1910
Schutte, Tenjes Henry
B.S., 1912
Sears, George Wallace B.S. (Drury Coll.) 1908

B.S. (Worcester Poly. Inst.) 1907

Seese, Robert St. Clair B.S., 1912

Lenexa, Kansas Household Science Hume, Ohio Animal Husbandry

Fairburg

Organic Chemistry Petersburg Biology Springfield Scholar in Electrical Engineer-

(SS) Urbana

> Physics Columbia, Missouri

Chemistry Westfield, Mass.

History Woodstock History Woodstock SS Mathematics Urbana Agronomy Champaign

> Fellow in Zoology Carlinville

Fellow in English SS Bushnell Latin Champaign Philosophy

Bartleville, Okla. (SS) Physics Waukegan

Dairy Husbandry Fitchburg, Mass. (SS)

Education Champaign (SS)

Mathematics SS Gravville History Blountville, Tenn. Botany Nokomis

Chemistry Lenzburg SS History Kidder, Mo.

> Inorganic Chemistry Greenville Scholar in Latin
> Chester, N. Y.
> Mechanical Engineering Petersburg Scholar in Electrical Engineer-

M.S., 1911 Seawell, Cornelia Ruth A.B. (Greenville Coll.) 1912 Seely, Fred B

<sup>\*</sup>On leave of absence.

Shepherd, Queen Lois
A.B. (Northwestern Univ.) 1907
A.M. (Univ. Wisconsin) 1910
Shook, Glenn Alfred
A.B. (Univ. Wisconsin) 1907
Shulters, John Raymond
A.B., A.M., 1910, 1911
Simmering, Siebert Luke
B.S. (Univ. Colorado) 1912

Simons, Alexander MacDougall B.S., 1912 Simpson, Francis Marion

B.S., 1909 Smith, Orrin Harold A.B. (Knox Coll.) 1908

A.M., 1909

Smith, Rose A.B., 1911 Smith, Vivian Thomas

Ph.B. (Greenville Coll.) 1911 \*Smith, William Walter

\*A.B., B.S., 1900, 1907

\*Snyder, Christopher Henry
B.S., 1890
Sonnenfeld, Harry
B.S., M.S. (Cornell Univ.) 1911,

1912

Spangler, Mary Margaret A.B., 1911 Spencer, Edwin Rollin

A.B., 1911 Stevens, Robert Pearman B.S. (No. Dak. Agr. Coll.) 1910

Stewart, Charles Leslie A.B. (Illinois Wesleyan Univ.) 1911 A.M., 1912 Stokes, John William B.S., 1912

†Strawn, Myrtle A.B., 1906 Stunkard, Horace Wesley

B.S. (Coe Coll.) 1912 Sutcliffe, Emerson Grant A.B. (Harvard Univ.) 1911

Swenson, Wilhelm Arthur A.B. (Augustana Coll.) 1912 Taggart, Margaret Wallace A.B. (Western Coll.) 1906 A.M. (Univ. Wooster) 1907

A.M. (Univ. Wooster) 1907
Tagore, Rathindra Nath
B.S., 1909
Takaheshi, Mitsuteka
Tokvo Higher Technical School
†Tanabe, Stetian Fugta
B.S. (Knox Coll.) 1911
Tanner, Fred Wilbur
B.S. (Wesleyan Univ.) 1912
Taylor, Ward Hastings
A.B., 1910

Madison, Wis.

Philosophy Urbana Physics Bristol, N. Y. Fellow in French Boulder, Colo.
Fellow in Mechanical Engineering Chicago Electrical Engineering Vienna Animal Husbandry Corning, Iowa

Physics Gibson City SS Botany Tower Hill Education Philadelphia, Pa. Civil Engineering
San Francisco, Calif.
Civil Engineering Johannesburg, S. Africa

> Agronomy Joliet Scholar in English Rushville Scholar in Education Mandan, No. Dak. Theoretical and Applied Mechanics

(SS) Bloomington

Economics Norris City Fellow in Electrical Engineering Albion History Walker, Iowa Zoology Plymouth, Mass. English Gladstone, Mich. Scholar in Mathematics Wooster, O.

Zoology Bengal, India Botany Tokyo, Japan Electrical Engineering Tokyo, Japan Physics Warsaw, N. Y. Chemistry Avon Mathematics

<sup>\*</sup>Candidate for professional degree in Engineering.

<sup>†</sup>On leave of absence.

Thomas, Howard Rice C.E. (Univ. Texas) 1912

Thompson, David Grosh A.B. (Northwestern Univ.) 1911

Tieje, Ralph Earle A.B., 1910, A.M., 1912

Tilton, Nellie Edith A.B., 1910

Tohill, Louis Arthur A.B., 1912

Towns, Órla Alamon A.B., 1912 Tsou, Y Hsunden

B.S. (Cornell Univ.) 1912 Van Cleave, Harley Jones B.S. (Knox Coll.) 1909 M.S., 1910

Van Deusen, Archibald Beebe B.S., 1912

Van Zoeren, Gerrit John A.B. (Hope Coll.) 1912 Voegelein, Lily Belle

A.B. (Northwestern Coll.) 1912

Voigt, Irma Elizabeth
A.B., 1910, A.M., 1911
Wakeley, Leslie Marion
B.S., 1911
Waldo, Edward Hardenburgh
A.B. (Amherst Coll.) 1888
M.F. (Consult Hardenburgh

M.E. (Cornell Univ.) 1890 Warner, Earle Horace

A.B. (Univ. Denver) 1912 Washington, Margaret A.B. (Smith Coll.) 1912 Watson, Minnie Elizabeth A.B. (Olivet Coll.) 1909

Welch, Paul Smith
A.B. (Millikin Univ.) 1910
A.M., 1911
Wellman, Orpha May

Wellman, Orpha May
A.B., 1911
Wells, John Richard
B.S., 1912
Whitten, John Hamilton
A.B., 1911, A.M., 1912
Wildman, Ernest Atkins
B.S. (Earlham Coll.) 1912
Wiley, John Frederick
Ph.B. (DePauw Univ.) 1902
Williams, Guy Yandall
A.B. (Univ. Oklahoma)
A.M., 1910

A.M., 1910 M.S. (Univ. Chicago) 1911

Willson, Frank Gardner

B.S., 1903 Wilson, Frederick Weston B.S. (Kansas Agr'l Coll.) 1905

Wohlenberg, Walter Jacob B.S., 1910

Woodward, Paul Stanley B.S. (J. B. Stetson Univ.) 1908 Wooters, James Ellsworth Ph.B. (Blackburn Coll.) 1908

Austin, Texas Fellow in Theoretical and Applied Mechanics Evanston

Geology SS Urbana English

Champaign SS English Flat Rock SS

History Macomb SS History

(SS) Soochow, Kang Su, China Entomology Knoxville

> Zoology Chicago Electrical Engineering Zeeland, Mich. Chemistry Naperville Scholar in Latin Quincy Fellow in German Harvard Dairy Husbandry Urbana

> Electrical Engineering Urbana Physics Chicago Scholar in Entomology Oyster Bay, L. I. Zoology Oconee

Fellow in Zoology Champaign English Harvard Animal Husbandry Castleton Plant Physiology Whittier, Calif.

Chemistry SS Mattoon Education Enid, Oklahoma

> Fellow in Chemistry Urbana Electrical Engineering Hill City, Kan. Animal Husbandry Lincoln, Nebr. Fellow in Mechanical Engineering Louisville, Ky. Organic Chemistry

(SS) Carlinville Education

\*Worker, Joseph Garfield
B.S., 1904
Wright, Albert Bayard
B.S., A.M. (Illinois Wesleyan
Univ.) 1907, 1910
Wright, Philip Quincy
A.B. (Lombard Cott.) 1912
Wyatt, Frank Archibald
B.S. (Agr. Coll. Utah) 1910
Yapp, William Wodin
B.S., 1911
Yensen, Trygve D
B.S., 1907
M.S., 1912
Zoller, Harper Filer
B.S. (Lenox Coll.) 1911
Zucker, Adoloh Edward
A.B., 1912

Chicago Mechanical Engineering Wenona

Political Science
Galesburg
Scholar in Political Science
Logan, Utah
Agronomy
Urbana
Dairy Husbandry
Christiania, Norway

Electrical Engineering Hopkinton, Ia. Chemistry Ft. Wayne, Ind. Scholar in German

<sup>\*</sup>Candidate for professional degree in engineering.

A AE

Architecture

Architectural Engineering

#### UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA

(INCLUDING THE COLLEGES OF LITERATURE AND ARTS, SCIENCE, ENGINEERING, AGRICULTURE, AND LAW, THE LIBRARY SCHOOL, AND THE SCHOOL OF MUSIC)

# ABBREVIATIONS Courses

LA

Lb

Literature and Arts

Library Science

Agr	Agriculture	Md	Medical	Preparatory
BLA	Business, Literature and Arts			al Engineering
CE	Civil Engineering	MnE		Engineering
Cer	Ceramics	MSE		l and Sanitary
Ch	Chemistry	2.2023	Enginee	
ChE	Chemical Engineering	Mus	Music	8
EE	Electrical Engineering	RCE		Civil Engineering
HSAgr	Household Science, Agri-	REE		Electrical Engineering
HONE	culture	RME		Mechanical Engineer-
HSLA	Household Science, Litera-	10111	ing	Zizconanica: Zinginion
HOLA	ture and Arts	S	Science	
HSS	Household Science, Science	ŠS	Summer	Session
L	Law	55	Summer	Dession
L	Law			
			*CREDIT	
		OURSE	HOURS	RESIDENCE
Aagaard	, Arthur Hildeman	ME	75	Chicago
Abbott,	Helen	LA	98	Chicago
Abbott,	Leland Tracy	ME		Kenmore, N. D.
Abbott,	Louis Asa	Agr	681	Morrison
Abbott,	Seth David	Agr	98	Sheridan
	Bertram	Agr	641	Harrisburg
Abrams	, Duff Andrew, B.S., C.E.,	SS		Urbana
190	5, 1909			
Acer, I	Oonald Winchester	BLA	67	Medina, N. Y.
Acer, K	Oonald Winchester atherine Edith	HSLA	66	Medina, N. Y.
Adams,	Eugene Franklin	AE	96	Ashland, Neb.
Adams,	Joseph James	CerE	18 2-3	Rockville, Ind.
Adams,	Pauline Hopkins	Mus sp		Grand Rapids, Mich.
Adams,	William Calvin William Clyde	ChE (SS)	) 71	Watseka
Adams,	William Clyde	MnE	69	Chicago
Agee, P	olk Watkins	A		Helena, Ark.
	th, Harry Francis	Agr	321	Greensburg, Ind.
Ainswor	th, Harry Gregory	Agr	60	Mason City
Alband,		HSLA	30	Streator
Alband,	Lillian May	LA	94	Streator
Albin,	Harold Cornelius	Agr (SS,	61	Washington, D. C.
Albin,	John Norris	Agr		Geneva
Albrech	t, Arthur Joseph, A.B., 1912	L	56	Tiskilwa
Albrech	t, William Albert, A.B., 1911	Agr	130½	Flanigan
	t, Raymond Bean	LA	66	Minier
	t, Roscoe Harrison	CE	112	Minier
Aldrich	, Harry Glen	A	172	Galesburg
Aleshir	e, Sarah Louise	HSAgr	62	Chicago
Alexan	der, Catherine Carolyn, A.B.			
(U	niv. Michigan) 1912	Lb		Iron Mountain, Mich.
Alexand	der, Grace Elizabeth	SS	10	Chicago
Alexand	der, Grace Elizabeth der, James Greenleaf	L		Corydon, Iowa
Alexan	der, John Alva	SS	98 <del>1</del>	Mansfield
Allen,	Alice Alexandria	HSLA	25	Urbana
	Ernest Victor	ME	35	Pana
	Frank Oscar	S	30	Clinton
	Joe Graham	Agr		Washington, Ind.

<sup>\*</sup>Computed October 1, 1912.

	* 4		au .
Allen, Louis	LA	104	Clinton
Allen, Paul Glen	LA	34	Chicago
Allen Ruhen C	Agr		Montfort, Wis.
All Delegation		991	
Allen, Ruby Letitia	LA		Carlyle
	Agr	33 <del>1</del>	Watseka
Allis, Favette Henry	A	30 <del>1</del>	Manhattan, Kans.
Allis, Fayette Henry Allison, Carl Walter Allison, Jay Malcom Allison, Ruth Elizabeth	S	991	Olney
All'and Tan Malici	BLA	//2	
Allison, Jay Malcom			Downers Grove
Allison, Ruth Elizabeth	LA	32	Kirkland
Allison, I neodore Mason	LA	46	Peterson, Iowa
Almond, Harry Havens Altpeter, Walter George Alvord, Genevieve Raymond	A		Anderson, Ind.
Alterta Walter Corner	ME	42	
Altheter, Walter George		42	Chicago
Alvord, Genevieve Raymond	LA		Urbana
Alyea, Thomas Elwood	A		Earlville
Amborn, Louise	BLA		Ft. Madison, Iowa
Ambasas Anthur Camusal		60	
Ambrose, Arthur Samuel	Agr (SS)	58	Downers Grove
Amos, Douglas Jacques	Agr	7	Cairo
Amsbary, Harlow Aydelott Amsbary, Paul Donald Anderle, Emil Joseph	ME	71	Champaign
Amshary Paul Donald	A		Urbana
Andreis Emil Israels	Cer	71	
Anderie, Emil Joseph		71	Chicago
Anderson, Benjamin Franklin	L SS		Charleston
Anderson, Clarence Felix	SS	1301	Flora
	LA	341	Princeton
Anderson, Clarence Joseph		377	T inceion
Anderson, Clarence Scott	Agr	71	Polo
Anderson, Clyde Maxwell	S	33	Camp Point
Anderson, Mrs. Electa Jeannette			
Wallace	LA sp		Clayton
	LA SP	****	Clayton
Anderson, Isabella	LA	119 1-0	Prairie du Rocher
Anderson, John Henning	CE	791	Rock Island
Anderson, Joshua Clayton	Agr	481	Williamsport, Ind.
Anderson, Lillian Jean Gondoline		103	
Anderson, Liman Jean Gondonne	Mus sp		Chicago
Anderson, Owen Huntington	ME		DeKalb
Anderson, Rena	HSLA	63	Polo
Anderson, Owen Huntington Anderson, Rena Anderson, Roy William	Agr		Oregon
Anderson Waller Whiteemb	A	34	Holden
Anderson, Walker Whitcomb Anderson, Walter Siegfried Anderson, William French			
Anderson, Walter Siegiried	CE	771	Rock Island
Anderson, William French	Agr	331/2	Lake Forest
Andresen, Hans Henry Louis Andrews, Chauncey Bliss	A	71	Chicago
Andrews Champey Blice	Agr	67	Chicago -
Andrews, Chauncey Diss			
Andrews, Edwin Willard	ChE	40	Joliet
Andrews, John Asa	Agr	27	Walnut
Andrews James Burton	Agr	106	Walnut
Andrews, James Burton Andrews, Mark		100	
Andrews, Mark	Agr		Birmingham, Ala.
Andrews, Peach Helen	LA	98	Macon
Andrews, Roscoe Crum Andrews, William Edward Andrews, William Orus	LA		Mattoon
Andrews, William Edward	SS		Pana
Andrews William Orne	CE	115	Oak Park
Andrews, William Orus			
Anthony, Charles Becht	A	83	Chicago
Anthony, Charles Becht Apple, Charles Henry	CE	76	Peoria
Applegate, Albert Angelo	BLA	84	Atlanta
Applegate, Albert Angelo Applegate, Clyde Freeman Applegate, Ruth Pauline		243	
Applegate, Clyde Freeman	Agr	277	Greensburg, Ind.
Applegate, Kuth Pauline	HSS		Atlanta
Arbuckie, Leon	CE		Brocton
Armington, Dorothy Maude Armstrong, Clifford Oakley	LA	35	Dixon
Armstrong Clifford Onliles	ME	55	Bloomington
A		21	Moonington
Armstrong, Della Estelle	LA	26	Newton, Iowa
Armstrong, Lenox François	ME	39	River Forest
Armstrong, Louise Christobel, A.B.,			
1912	SS		Fenton, Mich.
		307	
Armstrong, Walter Clark	Agr	381	Chicago
Armstrong, Wayne Covert	SS	25	Newton, Iowa
Arnold, Howard Clinton	Cer	72	Chicago
Arnold Noble	1605	1101	Chicago
Anthora, Tomas Mannith			
	MSE	1102	
Arthur, lames Merritt	Agr		Indianapolis, Ind.
Asada, Toichi James		65	Indianapolis, Ind.
Arnold, Noble Arthur, James Merritt Asada, Toichi James Aschauer, Frank Henry	Agr		

Asn, Alan Newton	Agr	46	McNabb
Ashbeck, William Louis	A	6	Chicago
Ashley, Lauren S	L(SS)		Sibley
Asn, Alan Newton Ashbeck, William Louis Ashley, Lauren S Ashwill, Raymond Morris	BLA	9	Toledo
Ashwill, Kaymond Morns Atkinson, Albert King Atkinson, Frederick Mortimer, Jr. Atkinson, Harry Grant Attebery, Clara Mabel	S	1067	Chicago
Atlinean Frederick Mostimes Is	LA	94	Chicago
Atkinson, Frederick Mortimer, Jr.		77	
Atkinson, Harry Grant	LA	0.1	Mt. Vernon
	HSAgr	83	Hillsboro
Attebery, Homer Franklin Atwater, Allan Russell Atwood, Charles Austin	Agr		Hillsboro
Atwater, Allan Russell	Cer		Lugano, Switz.
Atwood, Charles Austin	Agr	139	Alta
Augustus Farl Kirkwood	Agr	57½	Urbana
Augustus Lalah Marie	HSAgr		Urbana
Augustus, Dalah Edgar	Agr (SS)	391	Urbana
Augustus, Raipii Eugai	Agr	341	Woodstock
Augustus, Lalah Marie Augustus, Ralph Edgar Austin, Barton Slade Austin, Harold Emery Auton, Lohn Thompson	ME		
Austin, Harold Emery		37	Chicago
Auten, John Thompson Avery, John Madison Avey, Daniel Morrisy, B.S., 1910	Agr		White Hall
Avery, John Madison	SS	$95\frac{1}{2}$	Nashville
Avev. Daniel Morrisy, B.S., 1910	BLA		Mattoon
Axelson, Alice Grace	S	55	St. Louis. Mo.
Avers George Lincoln	S CE	37	St. Louis, Mo. St. Charles
Ayers, George Lincoln Ayres, Lester George	EE	6	Chicago
Ayres, Dester George	Agr	v	Calivo, Capiz, P. I.
Azarraga, Francisco Babcock, Jennie May Bacher, Holland Robert			
Babcock, Jennie May	LA		Danville
Bacher, Holland Robert	S _	68	Bronxville, N. Y.
Back, Robert	CerE	147	Chicago
Bacon, Robert Hamilton Bader, Opal Virginia	EE	74	Kalamazoo, Mich.
Bader, Opal Virginia	SS	4	Browning
	EE	112	Appleton, Wis.
Bacusin Alexic Matthew	$\overline{Md}$		Odessa, Russia
Dailen Charles Wilher Tr	BLA	75	Geneva
Balley, Charles Wilber, Jr.	A		
Bailey, John Willard		68	Lovington
Bailey, LaForce_	A	35	St. Charles
Bagusin, Alexis Matthew Bailey, Charles Wilber, Jr. Bailey, John Willard Bailey, LaForce Bailey, Roscoe Edward Bailie, Robert Mills	EE	108	Lovington
Bailie, Robert Mills	A	70	Storm Lake, Iowa
Baines, Alice Elizabeth	HSLA	65	Urbana
Bainum, Glenn Cliffe	LA	961	Paxton
Bainum, Glenn Cliffe Bair, William Harry, B.S., (Ohio			
Northern Univ.) 1908	SS	13	Ruffsdale, Pa.
	HSLA	104	Urbana
Baird, Ethel May			Peotone
Baird, Stacey Phillip Baker, Alfred Michael Mark, Jr.	Agr	33	
Baker, Altred Michael Mark, Jr.	Agr (Ss)	441/2	St. Louis, Mo.
Baker, Cecil Earle	L sp		Pine Bluff, Ark.
Baker, Gerald Clifford	ChE		Bement
Baker, Harry James	Ch		Worthington, Ind.
Baker, Gerald Clifford Baker, Harry James Baker, Russell Parks Baker, Walter Earl Baker, William Hargrave	BLA	27	Dayton, Ind.
Baker, Walter Earl	S		Bement
Baker William Hargrave	SS	3	Altamont
Poldwin Los Store	AL	71	Freebort
Baldwin, Leo Starr Baldwin, William Frazier Balkema, Salome Rose	A	24	Chicago
Daldwin, William Flazier	ĹA	27	Chicago
Balkema, Salome Rose		201	
Ball, George Waldo	EE (SS)	381	Edison Park
Ballon, Joseph Ladd Bane, Frank Milton	ME	75	Wheaton
Bane, Frank Milton	Agr	18	Pontiac
Barber, Harry Truman Barber, John Kenneth	Ag	58 <del>1</del>	Pittsfield
Barber, John Kenneth	Cer		LaFox
Barber, Julia Minnetta	LA	100	LaFox
Barber Leslie Carroll		103	LaFox
	BLA		
Rarber Phil Chase	BLA MF		(.hscaaa
Barber, Julia Minnetta Barber, Leslie Carroll Barber, Phil Chase	ME	86	Chicago Taylorgille
Barber, Phil Chase Barbre, Clarence	ME Ch (SS)	86 79	Taylorville
Barber, Phil Chase Barbre, Clarence Barclay, Herbert Thomas	ME Ch (SS) CE	86 79 51	Taylorville Kansas City, Kan.
Barbre, Clarence Barclay, Herbert Thomas Barden, Harold Edward	ME Ch (SS) CE EE	86 79 51 46	Taylorville Kansas City, Kan. So. Pasadena, Calif.
Bardre, Clarence Barclay, Herbert Thomas Barden, Harold Edward Bardwell, Anna Laura	ME Ch (SS) CE EE HSLA	86 79 51 46 16	Taylorville Kansas City, Kan. So. Pasadena, Calif. Aurora
Barpre, Clarence Barclay, Herbert Thomas Barden, Harold Edward Bardwell, Anna Laura Bargh, George Holbrook	ME Ch (SS) CE EE HSLA BLA	86 79 51 46 16 67	Taylorville Kansas City, Kan. So. Pasadena, Calif. Aurora Kinmundy
Barpre, Clarence Barclay, Herbert Thomas Barden, Harold Edward Bardwell, Anna Laura Bargh, George Holbrook	ME Ch (SS) CE EE HSLA BLA Agr	86 79 51 46 16 67 34	Taylorville Kansas City, Kan. So. Pasadena, Calif. Aurora Kinmundy Mazon
Bardre, Clarence Barclay, Herbert Thomas Barden, Harold Edward Bardwell, Anna Laura	ME Ch (SS) CE EE HSLA BLA	86 79 51 46 16 67	Taylorville Kansas City, Kan. So. Pasadena, Calif. Aurora Kinmundy

Coulos Mariel Contrado	HSLA		Dankford
Barker, Muriel Gertrude		2.00	Rockford
Barkman, Charles Pruden	ĻA	37	Princeton
Barlow, Ralph Linden Barlow, Roscoe Leland	L $Md$		Urbana, Ohio
Barlow, Roscoe Leland		29	Walshville
Barman, Somendra Chandra Deb	LA	29	Bengal, India
Barnes, Allen Littler	A	1071	Urbana
Barnes, Allen Littler Barnes, Nelle	Mus (SS)	69	Urbana
Barnes, Otis Avery Barnes, Robert Olney Barnes, Russell Daniel	Ch		Auburn
Barnes Robert Olney	EE	37	LaGrange
Barnes Puscell Daniel	ĀĒ	37	Taylorville
Darnes, Russell Dalliel	ME	22	
Barnum, Edmund Maginnis Barnum, Richard Fyfe		33	LaGrange
Barnum, Richard Fyle	ME		LaGrange
Barr, Charlotte Dexter	LA		Freeport
Barr, James Lackner	BLA	32	River Forest
Barr, Charlotte Dexter Barr, James Lackner Barr, Lola Rea	SS	31/2	Greenville
Barreau, August Matthew	AE	$35\frac{1}{2}$	Bollendorf, Germany
Barrett, Edwin Galbraith	BLA		Des Moines, Ia.
Barreau, August Matthew Barrett, Edwin Galbraith Barrett, Frank Newton Barrick, Nellie Elizabeth	Age sh	10	Chicago
Barrick Nellie Elizabeth	Agr sp HSLA	81	Villa Grove
Darringer no	SS	0.1	Hillsboro
Barringer, Luna		10	
Barrow, Ethel May	HSS	19	Wilmette
Bartells, Henry Harrison	Cer	123	Camp Point
Bartells, Henry Harrison Bartels, Nellie Flora Barth, Edward Fred	LA	31	Edwardsville
Barth, Edward Fred	Agr CE	31	Pana
Barth, Joseph Leroy	CE		Murphysboro
Bartlett, Ellen Margaret	HSAgr sp		Alameda, Calif.
Bartlett, Ellen Margaret Bartley, John Solomon	A		Waterloo, Iowa
Postling Honey Wilmont	ËE	61	Tital fald
Bartling, Henry Wilmont Barto, Harriett nompson Bartz, Edwin Joseph		01	Litchfield
Barto, Harriett - nompson	HSLA		Urbana
Bartz, Edwin Joseph	BLA	33	Oak Park
Basadre, Federico	CE		Lima, Peru
Bascome, Bartow Strang	SS	1411	Elmira, N. Y.
Bass, Glenn Wallace	MSE	98	Walnut
Batkin, Paul Jay	L	120	Long Beach, Calif.
Rattey Ziloha Curtis	HSLA		Tiskilwa
Bauer, Arthur Archibald Bauer, Harry Lloyde Bauer, Leo Michael			Bunker Hill
Pauce Users I loude	Agr sp	72	Champaign
Dauer, Harry Lloyde	Agr		
Bauer, Leo Michael	A (SS)	78	Horton, Kansas
Bauman, Louis Peter	Agr (SS)	971	Springfield
Baumgarten, Arthur William	EE	74	Joliet
Baumgarten, Arthur William Baus, John Ellroy	Agr sp		Scales Mound
Baxter, Ralph Powell Baxter, Vaughn Butler Beach, Amy Adaline Beach, Elinor Beach, Francis Herman Beal, Mrs. Edith Beal, Walter Hubert	Agr		Astoria
Baxter, Vaughn Butler	Agr	721	Ottawa
Beach, Amy Adaline	LA	67	Champaign
Reach Flinor	Mus	42	Vandalia
Peach Francis Harman	LA	76	Champaign
Deat Man Edition			
Deal, Mrs. Eulin	Mus sp		Scio, Ohio
Beal, Walter Hubert	LA		Moline
Beall, John Fercival	LA	38 <del>1</del>	Alton
Beaton, Matthew A, Jr. Beatty, Edward Corbyn Obert	AE		Chicago
Beatty, Edward Corbyn Obert	LA		Quincy
Beaubein, Warren Platt Beaumont, George Stanley	AE	3	Quincy Whiting, Ind.
Beaumont, George Stanley	Agr	74	Chicago
Behb. Edwin Adams	Agr		Chicago
Rebb Forrest	Agr		Muskogee, Okla.
Pohl Maurice Pohest		114	Muskogee, Okla.
Postomouse Homes Take	Agr		
Beckemeyer, Harvey John	SS	83 2-3	Hillsboro
Becker, Carl Valentine	ME		Springfield
Becker, Lewis Michael	ME	4	Ouincy Chicago
Becker, Morris Lewis	ME (SS)	104	Chicago
Beckett, Harry Oscar	Agr sp		Stronghurst
Beckett, Joe Rand	A	70	Indianapolis, Ind.
Beebe, Christopher Keeney	ChE	61	Chicago
Beebe, Kenneth John	Agr	721	Chicago
Reehy Ruth Alice	LA	7 - 2	Urbana
Beaumont, George Stanley Bebb, Edwin Adams Bebb, Forrest Bebb Maurice Robert Beckemeyer, Harvey John Becker, Carl Valentine Becker, Lewis Michael Becker, Morris Lewis Beckett, Harry Oscar Beckett, Joe Rand Beebe, Christopher Keeney Beebe, Kenneth John Beebby, Ruth Alice Beeman, Marion Nelson	SS	521	
Beeman, Marion Nelson Behel, Vernon Wilbur		52 <del>8</del>	Lewistown
Denet, Vernon Windi	A		Chicago

Dahmamayar Holon	LA (SS)	271	Ovinca
Behrensmeyer, Helen Beindorf, Paul Albert Bell, Leo Richard	ME	2/2	Quincy Litchfield
Beindori, Faul Albert	MnE	75	Ctableton N V
Bell, Leo Richard			Stapleton, N. Y.
Belnap, Nuel Dinsmore	LA	71	Washington, D. C.
Belshaw, Charles Franklin Benitz, Frank Allyn	ME	10	Rockford
Benitz, Frank Allyn	Agr sp	19	Argentina, S. Am.
Benjamin, Harry Webb	S	61	Chillicothe
Benjamin, Harry Webb Benner, Arthur Jacob Benner, William Jacob Bennett, Hazel Marguerite	CerE	34	Chicago
Benner, William Jacob	Cer	32	Chicago
Bennett, Hazel Marguerite	LA		Washington
Rennett, Louise Nancy	LA	65	Urbana
Bennett, William Harrison	S	56	Aurora
Bennitt, Ralph Anderson	CE (SS)	107	Chicago
Bennett, William Harrison Bennitt, Ralph Anderson Benson, Arnold Seigfrid	Agr		Batavia
Renson Arthur Edward	A(SS)	27	Chicago
Bentley, Robert Lewis	Agr	146	Lockport
Bentley, Robert Lewis Bentz, Clarence Louis Berge, Maurice Aurelius	AE	6	Chicago
Berge, Maurice Aurelius	Md	25	Ransom
Berger, Frederick Edward	A	119	Davenport, Iowa
Berger, Wallace	AE	110	Chicago
Bergland Floyd Harrison	Agr	72	Wasco
Bergland, Floyd Harrison Bergman, Frank	EE		Chicago
Bergmann, Adolph	ME	90	Chicago
Berlin, Ethel Mary	BLA	67	So. Omaha, Nebr.
	A	87	Dayton, Ohio
Bernard, Leslie Cosby		07	Berg auf Fehman,
Berner, Johannes Jakob	Agr sp		
D. J. H. T	7.4		Germ. Collinsville
Bernhardt, Josephine Elizabeth	LA	22	
Bernhardt, Josephine Elizabeth Bernhardt, Pearl Anna Maria Berninger, Harriet Josephine	HSS	32	Collinsville
Berninger, Harriet Josephine	SS	151	Mt. Carmel
Berry, Edwards Hall	EE	78	Oak Park
Berwald, Charles Harry	EE	40	Dallas, Texas
Berwald, Charles Harry Beust, Max Charles	AE	31	LaCrosse, Wis.
Bevis, Albon Ledru	BLA		St. Louis, Mo.
Beyer, Elizabeth Gunder Beyer, Vera	SS	32	Urbana
Beyer, Vera	BLA	63	Urbana
Bicknell, Fav Helen	HSAgr	94	Lovington
Bigel, William, Ir.	Agr		Chicago
Bicknell, Fay Helen Bigel, William, Jr. Bigler, Harry Edward	BLA	713	Sigel
Bilhorn, Walter Edward Billman, Elliott Binding, Leo Ross	CE	79	Chicago
Billman, Elliott	LA		E. St. Louis
Rinding, Leo Ross	Agr sp		Stockbridge, Mich.
Bingham, Arthur Barnes	Agr	331	River Forest
Birch, Robert Featherstenaugh	LA	002	Geneva
Birdsall, Jessie Marie	Mus		Dows, Ia.
Birkenbeuel, Clarence Edward	EE		Peru
Rissell George Francis	Cer (SS)	58	Winnetka
Bissell, George Francis Bissell, Stanford Faulkner Black, George William	LA	50	Chicago
Black Coorgo William	Agr sp		Urbana
Black, Hugh Ray	ME SP	1	Hall, N. Y.
Diack, Hugh Kay	ME	75	Mendota
Black, John Earl	S	13	Urbana
Black, Lois Frances Black, Robert Sommerville	ME		Mendota
Black, Robert Sommerville		0	
Blackall, Alfred Harris	SS	8	Chicago
Blackburn, Earl Franklin	Agr sp	771	Hillsboro
Blackburn, Frederick Jackson	Agr	751	Hillsboro
Blackburn, Robert Edwin Blackwell, Michael Joseph	Agr	$104\frac{1}{2}$	Quincy
Blackwell, Michael Joseph	Agr sp		Armorel, Ark.
Blair, Clarence Eugene Blair, Hattie Mary	Agr sp		Danville
Blair, Hattie Mary	SS	61/2	Salem
Blake, George Washington Blake, Winifred	CE	37	Maywood
Blake, Winifred	HSAgr	48	Maywood
Riakeslee Walter Arthur	ME	101	Kansas City, Mo.
Blatherwick, Wiltred Francis	A S	109	Vincennes, Ind.
Bleuel, Marie Teresa Block, Edward Stevenson	S	39	Chicago
Block, Edward Stevenson	Agr		Chicago

71 1 7 1 1 77 1			
Bloebaum, Benjamin Harrison	L CE	50	St. Charles, Mo.
Bloom, Carl Wilfred	CE	43	Omaha, Nebr.
Bloom, Carl Wilfred Bloom, Frederick Eller	BLA		Peoria
Dioon, Frederick Eller	CE		
Blough, Earl Blaine	CE	80	Champaign
Blough, Earl Blaine Blue, Mrs. Eleanor Baker, A.B.,			
1906	SS		Chambaian
D1 T7 T	55	-	Champaign
Blue, Harry J. Blum, Walter Joseph Bock, Paul Theodore Boettiger, Louis Angelo	SS	5	Shawneetown
Blum, Walter Joseph	EE CE	77	Chicago
Rock Paul Thoodore	CE	112	
Bock, Lauf Theodore	CE.		Chicago
Boettiger, Louis Angelo	LA	116	Chicago
Bolander, Harold Benjamin Bollman, Arthur Henry Bolster, Nicholas John Bonham, Martha Elizabeth Bonner, Ray Fisher Boone, George Ingels	EE	92	Glen Ellyn
Bollman Arthur Honey	$\overline{BLA}$	, -	
Boliman, Aithui Henry			Tuscola
Bolster, Nicholas John	CE		Mercedes, Argent.
Bonham, Martha Elizabeth	LA	99	Watseka
Donner Don Fisher			
Bonner, Ray Fisher	Agr sp		Canton
Boone, George Ingels	Agr	48	Sidney
	A	50½	LaFayette, Ind.
Booze, MacDonald Charles Bose, Kumudini Kauta Boucher, Cecil Francis Bourassa, Reginald Pierre	Ĉ	401	
booze, MacDonald Charles	Cer	69 1	Sullivan
Bose, Kumudini Kauta	ME		Dacca, Bengal, India E. Las Vegas, N. M.
Roucher Cecil Francis	A	77	E Las Vagas N M
Doucher, Coll Trailers			L. Lus veyus, IV. Di.
Bourassa, Reginald Pierre	A	32	Westfield, Mass.
Bourdette, Bertha Estelle	LA	1041	Montevideo, Uruguay
Bow Loren Cuching	CerE		Datusit Mist
Bow, Loren Cushing Bow, Warren Edward	CEIL	36	Detroit, Mich. Detroit, Mich
Bow, Warren Edward	S LA	713	Detroit, Mich
Bowen, Evalena Bowen, Harry Eldridge	I.A		Fruitport, Mich
Down Harm Eldridge			
Dowell, mairy Eldridge	Agr sp		Neponset
Bowen, Harry Stephenson	AE		Seattle, Wash.
Bowers, Blanche Belle	HSLA	29	Clinton
Dowers, Lake Endamid			
Bowers, John Frederick Bowers, William Ray	ME	31	Elmwood
Bowers, William Ray	Agr		Lanark
Bowling, Benjamin Lester Bowlus, Hazel W Bowlus, Marie Louise	CE sp		Stanford
Danilya Harri W	7 4 37	3.0	
Bowlus, Flazel W	LA	32	Urbana
Bowlus, Marie Louise	Mus	12	Urbana
Bowman, James Loy	SS	5 ½	Litchfield
Downlan, Tanics Loy	23	J 2	
Boyd, Edith Boyd, Frances Josephine	LA	33	Sheffield
Boyd, Frances Tosephine	LA	98	Latham
Royd Landon Raird	A	, ,	
Doyd, Landon Daild	200		LaPorte, Ind.
Boyd, Lowell I haddeus	SS	681	Bedford, Ind.
Bove, Walter Fred	LA		St. Paul
Rover Walter Howard	CE	75	
Boyd, Landon Baird Boyd, Lowell Thaddeus Boye, Walter Fred Boyer, Walter Howard	TIOT 4 (OC)	13	DeSoto, Mo.
	HSLA (SS)	951	Decatur, Ind.
Bradley, Cedric Corv	EE	36	Westfield, Mass.
Dradley Fromb		-	
Bradity, Frank	Agr sp		Avon
Bradley, Cedric Cory Bradley, Frank Bradley, Harold Smith Bradley, John Thomas, Jr. Bradley, Tobias Edward Bradrick, Lucy Center Brady Edward Michael	AE	61	Rockford
Bradley, John Thomas, Ir.	Agr		St. Louis, Mo.
Bradley Tobics Edward		9	D
Diadicy, Tobias Edward	L sp		Peoria
Bradrick, Lucy Center	LA .	104	Farmland, Ind.
Brady, Edward Michael	CerE	32	Anna
Brainard, Fred Branch, Nelle Uree, A.B., 1907	CE (SS)	69	
Diamaiu, Fieu		09	Prairie Du Sac, Wis.
Branch, Nelle Uree, A.B., 1907	Lb		Champaign
Brandner, Alexander Rudolph	$\boldsymbol{A}$	117	Chicago
Deandnes Emil Corner	ChE		
Brandner, Alexander Rudolph Brandner, Emil George Brandon, Engenie Josephine Brandon, Joseph Franklin			Chicago
Brandon, Engenie Josephine	LA		Farmer City
Brandon, Joseph Franklin	Agr		Washington, Ind.
Brandstotter Joseph Mandel		0.4	Climber on, Ind.
Brandstetter, Joseph Mandel	AE	86	Chicago
Brannon, George Raymond Brannon, Herbert Franklin Brant, Chauncey Hezekiah Brasen, Herbert Spencer	Agr	19	Lowell, Ind.
Brannon, Herbert Franklin	L sp	31	Streator
Brant Chauncey Hozolrich	100	52 <del>1</del>	
Diant, Chauncey Hezekian	Agr CE		Hamilton
Brasen, Herbert Spencer	CE	85	Chicago
Bratten, Arno	SS		Marion
Bratten, Arno Brayton, Dorothy Mae	UCC		
Drayton, Dorothy Mae	HSS	$58\frac{1}{2}$	Blue Island
Diccount, Letry	ME	36	Decatur
Breedis, John	ChE sp		Goldinger Page
Breedlove Lincoln Detec	ME SP	021	Goldinger, Russia
Dieediove, Lincoln Bates	ME	921	Goldinger, Russia Martinsville, Ind.
Breedlove, Lincoln Bates Breining, Walter Alyn	$\boldsymbol{A}$	74	Indianapolis, Ind.
Breitmeyer, John Fred	Agr sp		Mt Clamans Mist
Breitmeyer, John Fred Breitstadt, Emma Matilda	TA		Mt. Clemens, Mich.
Dienstaut, Linna Matinga	LA		Quincy

Brennan, Wintress	LA	58	Ogden
	22		
Brenneman, Charles Gage	SS	8	Ava
Brenneman, Jacob Brentlinger, Clell McArthur	Agr sp		Hopedale
Donathan Clair Manager			
Brentlinger, Clell McArthur	EE		Carlisle, Ind.
Breton, John Fred	ME	81	Chicago
Decree Charter Wallington		-	
Brewer, Chester Wellington	သ		Urbana
Brewer, Chester Wellington Brewer, George Wilson Brickler, James Irven, A.B. (Hills- dale), 1894; M.S. (Univ. Michi- gan), 1909	S SS	7	Louisville
Daialdan Tanan Turan A D /77'77			
Brickler, James Irven, A.B. (Hills-			
dale). 1894: M.S. (Univ. Michi-			
	1 (55)		17 L
yun), 1909	Agr(SS)		Urbana
Brigham, Vernon Dee	Md		Robinson
Drinkorhoff Vorno William	ME	40	Rock Island
Brinkerhoff, Verne William		40	
Bristow, George Washington	S		Metropolis
Deitten Flord Francton	Ĺ		Mt. Vernon
Britton, Floyd Evansion			
Britton, William Everett, A.M. 1910	L	28	Mt. Vernon
Prondhont Ford Dohont	ME	38	Chicago
Broadbent, Earl Robert			
Bristow, George Washington Britton, Floyd Evanston Britton, William Everett, A.M. 1910 Broadbent, Earl Robert Broadhead, William James Broadhurst, Tabitha Jayne	Agr (SS)	1011	Sedgwick, Colo.
Drondhungt Tobitha Tourne	Mus sp		Little Rock, Ark.
Dioauliuist, Tabitha Jayne			
Brock, Elmer Lorin Brock, James Samuel	SS	7-3	Jeffersonville
Decale Tamos Camual	Agr	701	Keithsburg
Brock, James Samuel			
Brockmeyer, Edwin John	AE	112	E. St. Louis
	CE	39	Cambridge
Brodd, Lawrence Samuel			
Broehl, Wayne Gottlieb	BLA	69	Pana
Bronson, Roger Beckwith Brooks, Elizabeth Maude Brooks, Ethel Isabel Brooks, Fannie Maria	BLA		Wilmette
Dionson, Roger Beckwith			
Brooks, Elizabeth Mande	LA	65	Potsdam, N. Y.
Deceles Ethel Techel	HSLA		Beecher City
Drooks, Ether Isabel			
Brooks, Fannie Maria	HSLA	57	Saunemin
Brooks, Fred Reynolds			
Brooks, Fred Reynolds	A	$58\frac{1}{2}$	Loogootce, Ind.
Brooks, George Roland	Agr (SS)	24	Paris
Brooks, George Roland Brooks, Oscar Franklin Brooks, Raymond Harrison		28	Paris
brooks, Oscar Franklin	Agr	20	
Brooks, Raymond Harrison	Agr		Marion
Brown, Albert Willard Brown, Bayard Brown, Edward Sutherland Brown, Elmer Alfred	EE		
brown, Albert Willard			Tiffin, Ohio
Brown, Bayard	Agr		Genoa
Danner Edmand Cost out and		0.01	Normal
brown, Edward Sutherland	Agr	$80\frac{1}{2}$	
Brown, Elmer Alfred	EE	79	St. Louis, Mo.
Desarra Elman Anthon		45	Urbana
Brown, Elmer Arthur	ME(SS)	43	Oroana
Brown, Flora Maud, A.B. (Univ.			
T\ 100"	T 2.		Can Cala Tausa
Texas) 1905	Lb		San Saba, Texas
Brown, Francis Andrew	A	114	Champaign
Danner Frank Lineste			
Brown, Frank Lincoln Brown, Howard Dexter	LA	12	Macomb
Brown, Howard Dexter	Agr	711	Tiffin, Ohio
Danier Territor			
Brown, Irwin Tucker	Agr sp		Chicago
Brown, James Fearon Brown, John Bernis Brown, Kenneth George	L	6	Urbana
Danne John Donnie	ChE	31	
brown, John Bernis	CHE		Rock Falls
Brown, Kenneth George	LA (SS)	3	Urbana
Brown, Lelah Brown, Lloyd Warfield Brown, Loyal Charles	SS		Hillsboro
Diowii, Leian			
Brown, Lloyd Warfield	Agr sp	24	Jacksonville
Proven Lovel Charles		153	Genoa
Brown, Loyar Charles	Agr sp		
Brown, Olive May	Mus	73	Champaign
Brown Pembroka Holoomb	LA	33	Rockford
Drown, Fembroke Holcomb		33	
Brown, Olive May Brown, Pembroke Holcomb Brown, Robert Rea Brown, Russell Warden	BLA		Urbana
Prown Puscell Wanden		111	Marshall
brown, Russen warden	BLA (SS)		
Brown, Rutherford Haves	Agr sp	153	Griffin Cor., N. Y.
Brown, Rutherford Hayes Brown, Waldo Reinhart Bruce, Walter Robert	ME	31	Niles Center
Drown, Waldo Kellillait			wites Center
Bruce, Walter Robert	LA	13	Blue Island
Bruington Farle Vivian			Monmouth
Bruington, Earle Vivian	Agr		
Bruner, Crane Simpson	CE	44	Urbana
Bruner, Mary Viola	LA	97	Mattoon
Didici, Mary Viola			
			Darbardara Lagua
Brunkow, Norman Ferdinand	LA	73	Duouque, lowa
Brunkow, Norman Ferdinand	LA		Dubuque, Iowa
Brunkow, Norman Ferdinand Brunskill, Everett Robert	LA ChE	35	Pontiac
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell	LA		
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell	LA ChE Agr	35	Pontiac Joliet
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE	35	Pontiac
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE Agr	35	Pontiac Joliet
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE Agr Mus sp	35	Pontiac Joliet Champaign
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE Agr Mus sp Mus sp	35 <b>124</b>	Pontiac Joliet Champaign Champaign
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE Agr Mus sp	35	Pontiac Joliet Champaign
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Bryan, Helen Gordon, A.B., 1906 Bryan, Sarah Elizabeth, A.B. 1908., B.L.S., 1910 Bublitz, Walter John	LA ChE Agr Mus sp Mus sp CE	35 124 75	Pontiac Joliet Champaign Champaign Chicago
Brunkow, Norman Ferdinand Brunskill, Everett Robert Brunson, Arthur Maxwell Brvan, Helen Gordon, A.B., 1906	LA ChE Agr Mus sp Mus sp	35 <b>124</b>	Pontiac Joliet Champaign Champaign

Rucher Frmane Caylord	Cer	35	Pontiac
Ducher, Limane Caylord			
Buck, Daniel Sidney	CE	53	McLean
Bucher, Ermane Gaylord Buck, Daniel Sidney Buck, Odin H	ME		Oblong
Duck, Odili II	CE	70	
Buck, Philip Eliot Buck, Walter Elmer	CE SS SS SS	79	Chicago
Buck, Walter Elmer	.5.5	61	Beardstown
Buckler, Bruce Joseph Buckler, Carl William Buckner, Orello Simmons Budina, Adolph Otto Buell, Temple Hoyne Buelow, Paul Edward	22	01	
Buckler, Bruce Joseph	22	81	Metcalf
Buckler Carl William	22.	73	Metcalf
Duelmen Onella Cimmone	Car	, ,	
Buckner, Orello Simmons	Cer		Newark, N. Y.
Budina, Adolph Otto	A	78	O'Fallon
Puell Tomple House	AE		
Buen, remple moyne			Chicago
Buelow, Paul Edward	ME		Elgin
Buerkin, Julius Allan	A	20	
	4_		Quincy
Buffington, Frank Harris	EE	108	Middletown, Ohio
Duhai Ahraham Samuel	CerE		Chicago
Dullai, Abraham Samuel			
Buhai, Abraham Samuel Buhai, Michael	AE	69	Chicago
duBuisson, Johannes Petrus	S (SS)	1311	Sanahal Orange Free
dubuisson, jonannes renus	3 (33)	1213	Senekal, Orange Free State, So. Africa Union Grove
			State, So. Africa
Bull, Maude Emily	HSAgr	32	Ilmina Grane
D 11 1 D 1 1 XX -1.			Omion Grove
Bullard, Edward Wesley	CE	105	Mechanicsburg
Bullard, Edward Wesley Bullard, Geraldine Alice	LA	77	Mechanicsburg
Dallard, Octability Times			
Bulot, Francis Henri	MSE	91	Chicago
Bumann, Albert Theodore Bumstead, Alice Amelie Bumstead, Whitney Vand	ChE		Litchfield, Ill.
Dumaini, Indere Incodore			
Bumstead, Alice Amelie	HSAgr	70	Dundee
Bumstead Whitney Vand	S		Chicago
Dumstead, Whitee	1100		
Bunch, Mamie	HSS	80	Urbana
Bundy John Leland	Agr		Tuscola
Bundy, John Leland Bunge, Ralph William Bunn, Nixon Lawrence	365 (00)	0.4	
Bunge, Kalph William	ME (SS)	91	Chicago
Bunn, Nixon Lawrence	CE	104	Springfield
Destina Land Desial		20,	
Bunting, Loyd Daniel	LA		Ellery
Bunting, Lyman Jesse	Agr	70	N. Yakima, Wash.
Danger Howard Loop	DIA		
Bunting, Lyman Jesse Burger, Howard Jean Burgoon, David Warner Burke, Edmund Joseph	BLA	37	Woodstock
Burgoon, David Warner	EE		E. St. Louis
Durke Edmund Toronh			
Burke, Edmund Joseph	CE		Chicago
Burke, Gertrude Frances	LA		Chicago
Burke, Ralph	ME	75	Three Rivers, Mich.
Durke, Kaipii		13	I hree Kivers, Mich.
Burkhart, Paul Henry Burnam, Harry Stough Burnett, William, Jr.	ME		Henry
Burnam Harry Stough	L		
Durnam, Harry Stough	<u>_</u>	~ ~	Lexington, Ky.
Burnett, William, Jr.	EE	72	Decatur
Burnham, Marjorie Olive	LA		Paris
During Andrew		4.0	
Burns, Ardean Burns, Charles Maley, B.S. (Knox	Agr (SS)	40	Chicago
Burns, Charles Maley, B.S. (Knox			
C. II )	r		C 1 1
Coll.)	L L		Galesburg
Burns, Cyril Agard, A.B., 1911	7.	52	Fairbury
Parma File	LA		Con 1 Davida Mist
Burns, Cyril Agard, A.B., 1911 Burns, Ella			Grand Rapids, Mich. Grand Rapids, Mich.
Burns, Franklin Barnhart	BLA	86	Grand Rapids, Mich.
Burns, Owen McIntosh	LA		Danville
Durins, Owen McIntosi			
Burrell, Thomas Henry	AE		Albion
Burstrom, Stephen William Burt, Ruth Cornelia	EE	1301	Albion, Idaho
Durstrom, Stephen William		1308	
Burt, Kuth Cornella	LA sp		Savoy
Burtnett, Reid Albert	EE		St. Louis, Mo.
Donton House France	SS		
Burton, Henry Frazee	22		Vincennes, Ind.
Burwash, Clarence Fletcher Burwash, Lois Irene, A.B. 1906, A.M., 1907	Agr	1167	Champaign
Durwich Lois Trope A D 1006 1	Car ANTONOMICS	\$ G	on any argin
Duiwash, Lois Helle, A.D. 1900,	<b>学</b>	Mar	
A.M., 1907	SS		Champaign
Ruguech Mahel Estella	LA	120	
Dui wash, Maber Estella	LA		Champaign
Burwash, Mary Gladys	LA	102	Savoy
Burwash, Mabel Estella Burwash, Mary Gladys Burwash, Ralph Samuel Burwash, Thomas Clifford	ME		Champaign
D. Cliffe of		**	
Burwash, Thomas Clifford	BLA	59	Champaign
	Agr sh	21	Danville
Busey, Josephine Katherine Busey, Nora John Busey, Mrs. Verna Kerker Bush, Frank Avery	BLA Agr sp LA (SS) Mus	27	
Busey, Josephine Katherine	LA (55)	27	Urbana
Busey, Nora John	Mus	23	Urbana
Desay Men Vorne Korley	3/	1251	777
busey, Mrs. Verna Kerker	Mus	1233	Urbana
Bush, Frank Avery	BLA	25	Peoria
Ruch Kenneth Burman	CE		
bush. Kenneth burman	CE	72	Quincy
Busick, Elinor Katherine	CE SS		Belleville
Busick, Elinor Katherine Busse, Henry Herman	BLA (SS)	22	Chicago
Dusse, Alein y Aleiman	DLA (33)	66	Chicago

Butler, George Howland	CE	41	Chicago
Butler, George Howland Butler, Gordon Hubert	SS	81	Scipio, Ind.
Butler Tewell Cecil	EE	74	Havana
Butler, Jewell Cecil Butler, William Glenn			Cairo
Putt Harlan Marian	Agr (SS) CE	737	
Butt, Harley Marion Buttonmaker, Mark Adolph	CE	75	Gilson
Buttonmaker, Mark Adolph	Cer	641	Chicago
Butzer, Byrdie Blye	HSLA	31 39	Hillsdale
Butzer, Verna Viola Butzow, Emma Bertha	HSLA	39	Hillsdale
Butzow, Emma Bertha	LA	16 2-	3 Wellington
Buxton, Stanley Gerald Buzick, James Clive Bye, Herbert William	Agr	131	Wingate, Ind.
Buzick, James Clive	BLA	59	Champaign
Bye, Herbert William	L		Chicago
Byrne, Harriet Anne	HSS		Chicago
Byrne, Harriet Anne Byrne, Helen Cecelia	LA (SS)	111.2	-3 Chicago
Cade, Albert Frederic	BLA	111-2	
Codious Torontine T		321	
Cadieux, Josephine Louise Cadle, Chester Junius Caule, Hubert Atwater	<u>SS</u>	7	Chicago
Cadle, Chester Junius	LA		Charleston
Caule, Hubert Atwater	ME		Westfield, Mass.
Cahalen, Joseph Deming Caldwell, Lloyd Raymond Caldwell, Reginald Alexander Campbell, Arthur Harvey Campbell, David Joseph Campbell, Florence Madie	ChE	23	Lenoxdale, Mass.
Caldwell, Lloyd Raymond	Agr	33	Neoga
Caldwell, Reginald Alexander	Agr sp		Chicago
Campbell, Arthur Harvey	AE	1021	Macomb
Campbell David Joseph	LA	17	Urbana
Campbell Florence Mond		17	
Campbell Cross Assatis	LA	0.	Tolono
Campbell, Grace Amelia Campbell, Horace Leslie Campbell, Mary Anabel	LA	91	Urbana
Campbell, Horace Leslie	Agr		Tallula
Campbell, Mary Anabel	HSLA		Albion
Campbell, Mildred Elizabeth Campbell, William Briggs Canneld, Ruth Mae Cannady, Will M., Jr.	LA	27	Decatur
Campbell, William Briggs	LA	5	Tucson, Arizona Holton, Kansas
Canfield, Ruth Mae	LA	93	Holton, Kansas
Cannady, Will M., Ir.	L	57	Danville
Carey, Russell Conwell	ĒΕ	31	Pittsfield
Carlisle, Donald Thompson	BLA		Elain
Carleen Arnold Willman	AE	2 €	Elgin
Carlsen, Arnold Willmore Carlson, Carl Bernard		35	Chicago
Carlson, Carl Bernard	ÇE	41	St. Charles
Carlson, Carrie Esther Carlson, Lee Russell Carlson, LeRoy	LA		Chicago
Carlson, Lee Russell	EE		Clarence
Carlson, LeRoy	Agr		St. Charles
Carmichael, Wilbur Jerome	Agr	$110\frac{1}{2}$	Rochelle
Carney, Clara Kathleen Carney, Mary Vance	HSAgr	32	Marseilles
Carney, Mary Vance	LA (SS)	68	Marseilles
Carpenter, Charles Kneeland	A	35	Faribault, Minn.
Carpenter, Charles Kneeland Carpenter, Jay Ira Carpenter, Lewis Moffit	Ägr	33	Rochelle
Carpenter Lewis Moss	2191	541	Peoria
Carpenter Ocio Edith	SS SS		
Carpenter, Osie Edith Carpenter, Thomas Earle	33	8	Muncie, Ind.
Carpenter, Inomas Earle	BLA		Keokuk, Iowa
Carr, Vernon Wesley Carr, William Charles	BLA		Denison, Iows
Carr, William Charles	Agr	112	Chicago
Carrell, Elvey Franc Carrier, Adela Pauline Carrier, Gerald Vincent Carroll, Frank Emil Carroll, Franklin Otis	Agr		Chicago
Carrier, Adela Pauline	Mus	71	Urbana
Carrier, Gerald Vincent	BLA	65	Urbana
Carroll, Frank Emil	BLA	-	Atwood
Carroll, Franklin Otis	REE		Benton
Carroll, Lee Joseph	BLA	35	Chicago
Carroll, Lee Joseph Carruthers, Mary			
Carter Alice	HSAgr	16	Ava
Carter, Ance	HSLA	34	Irvington, Ind.
Carter, Alice Carter, Isaac Ray Carter, Truman Post	LA SS	71	Rossville
Carter, Iruman Post	22		Jacksonville
Cartwright, Sara Blanche Cartwright, Victor Harold Cary, Willie Ready Case, Flora Margaret, A.B., 1912	HSS	123	East Alton New Harmony, Ind.
Cartwright, Victor Harold	S (SS)	123	New Harmony, Ind.
Cary, Willie Ready	LA		Chicago
Case, Flora Margaret, A.B., 1912	Lb	40	Urbana
Case, John Ruggles	Agr	102	Chicago
Casey, Sylvia Nevada Cash, Madia Alice	Mus sp	28	Woodstock
Cash, Madia Alice	SS	8	Greenup
Casner, Sidney	LA	71	Chicago
,	201	/ 1	Chicago

Con Flinshoth Hamilette A.D.			
Cass, Elizabeth Henrietta, A.B.,	T 1		341 77 777-1
1912	Lb	55	Mt. Vernon, Wash.
Casserly, Joseph Bernard	Agr	41	Champaign
Casserly, Joseph Bernard Cassidy, Holland Mullikin	L	26	Flora
Cassingham, Florence Adelaide	LA	102	Champaign
Casteen, John Carlos Casteen, Marie Louise Castillo, Carlos Castelazo Castle, Russell D V	Agr		Versailles
Casteen Marie Louise	SS	7	Versailles
Castillo Carlos Castelazo	RCE (SS)	51/2	Queretaro, Mexico
Castle Puscell D V	Cer	22	Urbana
Castle, Russell D V		21	
Caswell, Omar	SS	21/2	Mascouta
Cate, Huber Arthur	Agr (SS)	$117\frac{1}{2}$	Champaign
Cater, Sumner Harris	Agr		Princeton
Cathcart, Robert Irl Cattron, Conrad Lee Cattron, Thomas Hezekiah	ME	30	Deland
Cattron, Conrad Lee	Agr	$101\frac{1}{2}$	Ellisville
Cattron, Thomas Hezekiah	EE	1181	Fairview
Chambers, William Harold	Agr	36	Evanston
Chand Hari	EE (SS)	22	Punjab, India
Chand, Hari Chang, Vun-din Chinzun, B.S., 1912	SS		
Chang, vun-um Chinzun, B.S., 1912			Shanghai, China
Chaptrey, Frederick Arthur Chapman, Edward Neal	ME		Lake Forest
Chapman, Edward Neal	ChE	28	Chicago
Chapman, Howard Alonzo	EE		Warrensburg, Mo.
Chapman, Ralph Dwyer Clinton	BLA	40	Vienna
Chapman, Ralph Dwyer Clinton Chapman, Raymond Stallwood	Agr		Chicago
Charni, Frederick Neal	A		Brookville, Ind.
Charni, Frederick Neal Chartrand, John Baptist	EE	28	E. St. Louis
Chara Clarence Calvin	ME	20	Buda
Chase, Clarence Calvin Chase, Dean		0.1	
Chase, Dean	MSE (SS)	81	St. Louis, Mo.
Chase, John Albion Chase, Katherine Trusdell Chase, Russell Leon	CE		Urbana
Chase, Katherine Trusdell	LA	70	Rock Island
Chase, Russell Leon	Agr		LeRoy
(hatten (arney Edward	S		Flora
Chatteriee, Brahma Nath	Agr (SS)	1001	Allahabad, India
Chatterton John Lannhier	LA	2002	Springfield
Chatterjee, Brahma Nath Chatterton, John Lanphier Checkley, Joseph Harvey	Agr	106	Mattoon
Chan II			
Chen, Huang Chen, King Yaou Chenoweth, Homer Eldon Chesnutt. Ralph Cookman	ChE	124	Kwong Chow, China
Chen, King Yaou	Ch	106	Shanghai, China
Chenoweth, Homer Eldon	S	102	So. Charleston, O.
Chesnutt, Ralph Cookman Chesrown, Leo Morello	ME	106	Chicago
Chesrown, Leo Morello	ME	75	Olney
Chew, Dorothy Chien, Sung Shu	HSS	24	Pueblo, Colo.
Chien, Sung Shu	S (SS)	78	Shanghai, China
Chipps, Paul L	Agr	50	Sullivan
	A	30	Chicago
Christensen, Erwin Ottoman		10	
Christianson, Oliver Arthur	A	15	Crookston, Minn.
Christopher, Arthur Bailey	Cer		Canton
Christianson, Oliver Arthur Christopher, Arthur Bailey Christopher, Bessie Fern	HSAg <sub>r</sub>	62	Auburn
Christy, Glen	EE	64	Harrisburg
Christy, Glen Chu, Co-Ching Chu, Vee Gih	Agr	1081	Shoa Hing, China Shanghai, China Shanghai, China
Chu. Vee Gib	ChE (SS)	124	Shanahai, China
(hijang Tsin	AE (SS)	981	Shanahai China
Chubbuck Judeon Fleon	EE (SS)	702	Gibson City
Chubhuck, Judson Elson Chumley, Edith Bland Churchill, Clarence Farnsworth Churchill, James Errol	EE SS S_	105	
Chumley, Edith Bland	22	198	Springfield
Churchill, Clarence Farnsworth	2.	$117\frac{1}{2}$	Chenoa
Churchill, James Errol	EE	75	Mt. Carmel
Claar, Elmer Allen	LA S	31	Moline
Claffin, Stephen Thurston	S	59	Lombard
Clapp, Howard Campbell	L		Danville
Claffin, Stephen Thurston Clapp, Howard Campbell Clapp, Perry Gibson Clare, William Henry	Agr sp		New Albany, Ind.
Clare, William Henry	A	123	Glen Ellyn
Clark Chester Arthur		71	Carthage
Clark, Clister Wint	Agr		
Clark, Chester Arthur Clark, Clifton Wirt Clark, Ernest McChesney	S (SS)	96	Chicago
Clark, Ernest McChesney	Agr (SS)	1131	Long Beach, Calif.
Clark, Harold Edward	Cer		Sterling
Clark, Harold Edward Clark, Harold Turner	BLA		Champaign
Clark, James Russell	A	28	Urbana
Clark, James Russell Clark, Meribah Eliza	LA	78	Mt. Sterling

Clark, Rena	SS	Terre Haute, Ind.
Clark, Roscoe Perry Clark, William Otis	ME sp	Enosburg Falls, Vt.
Clark, William Otis	Agr	Chrisman
Clarke, David Roland	LA 67	Urbana
Clarke, Ethel	HSS (SS) 103	Noblesville, Ind.
Clarke, David Roland Clarke, Ethel Clarke, George Edward	EE (00)	Noblesville, Ind.
Clarkeon Albert Iav	EE 35	Champaign
Clarkson, Albert Jay Clausen, Clara Alice	LA 31	Secor
Clausen Flizabeth Ichanna	HSAgr 48	Chicago
Clausen, Elizabeth Johanna Claussen, Arthur William Clawson, Kenneth Raymond	ME 106	Riverdale
Clauser Verneth Permand	A 30	Atlanta
Clark and Denather Marian	A 30	Oak Park
Clayberg, Dorothy Marion	A S 100	
Clayberg, Dorothy Marion Clayberg, Harold Dudley Claycomb, Edward Denman	3 100	Oak Park
Claycomb, Edward Denman	Agr 19½	Sycamore
Clegg, Isabel	HSAgr 56	Ottazva
Cleghorn, Lelia Belle	LA 76	Kankakee
Clements, Olen Robert Clemons, Lewis Taylor	LA 68 S 34 LA 35	W. Union
Clemons, Lewis Taylor	S 34	Paw Paw
Clendenin, Adda May Clendinen, Henry Clary	LA 35	Sparta
Clendinen, Henry Clary	LA	E. St. Louis
Climer, Mary Ella	S 67	Palestine
Climer, Mary Ella Cline, Irl Reuben Cline, Lawrence Albert	CE 36	Medora
Cline, Lawrence Albert	CE 75	Marion
Clover, Charles William	Agr	Clinton, Ind.
Clover, Charles William Clover, Ira Newton Clyman, David Clyne, Kathleen Marcella	MSE 34	Gardner
Clyman, David	A 36	Chicago
Clyne, Kathleen Marcella	LA 108	Maple Park
Coady, Catherine Gertrude	Mus sp	Champaign
Coady, Catherine Gertrude Cobb, Ernest Williams	ME 4	Chicago
Coburn, Mildred Leann	SS 8	McLean
Coburn, Mildred Leann Cochran, Charles Blake Cochran, Everett Lynn	AE 28	Marion
Cochran, Everett Lynn	A 26	Flora, Ind.
Cochran, Harry Rusling	ChE 111	Sterling
Cochran, Harry Rusling Cockrell, Francis Marion Codlin, Harry Lilsworth	EE (SS) 851	Marshall
Codlin. Harry talsworth	Agr 66	Wankee, Iowa
Coe, Helen Louise	S 31	Springfield
Coffey, Elmer Washburn	EE 105	Blue Island
Coffey, George Cleveland	L	Wayne City
Coffey, George Cleveland Coffey, Hazel Belle	L LA 62	Blue Island
Cogdall, Harry Frank	Agr 35	Chicago
Cohn, Alexander	$Md$ 69 $\frac{1}{2}$	Chicago
Colbert, Harold Leland Colbert, James Rubin Colbert, Tel Eli	Agr sp	Washington, Ind.
Colhert, Tames Rubin	LA 661	Fairfield
Colhert, Tel Eli	CC 15	Washington, Ind.
Colcord, Frank Maynard	Agr (SS) 58	Greenville
Colcord, Frank Maynard Cole, Guerney Hill Cole, Hugh Leon Cole, Robert McFarland	Agr (SS) 58 EE (SS) 119½ Agr (SS) 47	Pittsburg, Pa.
Cole, Hugh Leon	Agr (SS) 47	Geneseo
Cole. Robert McFarland	ChE 100	Glenview
Coleman, Henry Clay, Jr.	ME	Grcenville
Coleman Oren	SS 93	Carterville
Coleman, Oren Colescott, Leia Hazel Collins, Mrs. Emma Moss	SS 9½ SS	Fowler, Ind.
Collins Mrs Emma Moss	Agr sp	Chicago
*Collins Sherwin Moss	Agr	Chicago
Collison Louis Glenn	BLA	Champaign
*Collins, Sherwin Moss Collison, Louis Glenn Collom, Isabel Eva Collom, Mary Elizabeth	HSLA 67	Urbana
Collom, Mary Elizabeth	HSS 35	Urbana
Colombo, James Henry	BLA 94	Herrin
Colson, Harold Edward	Anr 314	
Colson, Harold Edward Colton, Russell Smith Colvin, Jay Austin	MSE 38	Kansas City, Mo.
Colvin Tay Austin	BLA 95	Chicago
Colwell Miles Gilbert	ME 53	Wyoming
Colwell, Miles Gilbert Combe, Eleanor Marie	LA 108	Highland
Comstock Daniel Franklin	BLA 44	Evanston
Comstock, Daniel Franklin Comstock, Melen Bell	HSLA 64	LaGrange
Conboy, Lourde Joseph	EE 73	Sterling
compos, mourae Joseph	10	O.C. Hing

<sup>\*</sup>Deceased.

Conderman, Julian Caleb	EE	16	Chicago
Condit, Olive Ferne	S		Ludlow
	LA	33	
Condon, Margaret Adele			Sheffield
Conefry, Hall Wyman Conklin, Paul Stanley Conley, David Oris	LA	31	LeRoy
Conklin, Paul Stanley	ME		Roscoe
Conley David Oris	Md		Streator
Conley, David Olis		100	
Conley, Josephine V Conner, Richard Henry	LA	102	Streator
Conner, Richard Henry	BLA		Heriot Bay, B. C.
Connors Stephen Wilfred	Md	32	Monroe, Wis.
Connors, Stephen Wilfred Conrad, Cassius Bannister Conrad, Orien Ray	BLA		
Conrad, Cassius Bannister	DLA	91	Sycamore
Conrad, Orien Ray	SS	16	Vandalia
Consoer, Meta	LA	103	Oak Park
Consoci, Micia			7 36 ' 36' 1
Cook, Austin Clarence	Agr sp	14	Iron Mountain, Mich.
Cook, Eugene	CE (SS)	21/2	Odin
Cook, Austin Clarence Cook, Eugene Cook, James Fitchie, B.S., 1903	SS		Elgin
Cooley Harmy D	AE	115	
Cooley, Harry B Cooley, Norma	AL		Chadron, Neb.
Cooley, Norma	22	141	Maywood
Coolidge, Edwin Ray	SS EE	108	Winnebago
Coolidge Dishard Newell	CE	36	
Coolinge, Richard Newell		30	Lead, S. D.
Coolidge, William Anderson, Jr.	Agr		Helena, Ark E. St. Louis
Cooper, Cedric Leslie Muriel	S	25	F. St. Louis
Cooper Charles Edward	Agr		Carliela Ind
Cooper, Charles Edward	2197		Carlisle, Ind.
Cooper, David William	EE		Astoria
Cooper, Delmar Gilbert	CE		Hoopeston
Cooper Edward Alden	ME	32	LaGrange
Cooper, Edward Mideli		34	
Cooley, Norma Coolidge, Edwin Ray Coolidge, Richard Newell Coolidge, William Anderson, Jr. Cooper, Cedric Leslie Muriel Cooper, Charles Edward Cooper, David William Cooper, Delmar Gilbert Cooper, Edward Alden Cooper, Kenneth Lupton Cooper, Perry Fenimore	CE (SS)	45	LaGrange
Cooper, Percy Fenimore Cooper, Verna May Cope, Walter Allen Copenhaver, Murray	ME	64	Waldron
Cooper Vorna Man	LA	34	Moline
Cooper, verila May			
Cope, Walter Allen	Agr	102	Tonti
Copenhaver, Murray	Agr	112	Polo
Conley Restrice Virginia	LA	41	Joliet
Copley, Beatrice Virginia Corbly, George Youle	1		
Corply, George Youle	Agr sp L (SS)	33	Urbana
Corbly, Lynn	L (SS)		Urbana
Cordell, Vail	1 A (SS)	71	Macomb
	EE CE ME		
Corke, George Raymond	EE	108	Evanston
Corley, Howard	CE	108	Decatur
Corley, Howard Corley, Seymour Cortis, Frederic Boyden	ME	36	Decatur
Cartie Frederic Poyder	TA	103	
Cortis, Frederic Boyden	LA		Hinsdale
Corzine, Clorah Eleen	SS	41/2	Janesboro
Corzine, Clorah Eleen Corzine, Harland Winn Costar, Lloyd Cotter, Roscoe Sherman	EE	1381	Charleston
Costar I lovd	Agr	106	
Costal, Lloyd		100	Chico, Calif.
Cotter, Roscoe Sherman	Agr sp		Oak Park
Coultas, Florence Avis	La	60	Sycamore
Coultas Wilson James	Anr ch		Winchester
Countries Criffs Cooper	CC SP	~	
Courtney, Grime Green	22	7	Marion
Courtney, Griffie Green Courtney, Martha Elizabeth Coutant, Albert Francis	Agr sp SS SS SS SS	61/2	Mt. Vernon
Coutant, Albert Francis	SS	5	Brooklyn, N. Y.
Covey, Arete Caroline Covey, John Ellsworth Cowan, Adair Cowan, Percy	LA	71	Farmer City
Comer Tales Ellaward			
Covey, John Ellsworth	Agr	5	Bloomington
Cowan, Adair	Agr sp		Mt. Vernon, Iowa
Cowan, Percy	BLA		Chicago
Cowgill, Clinton Harriman		20	
Cowgiii, Clinton Harriman	A	30	
Cox, Anna Ethel Cox, Claude Gaylord Cox, Don William Cox, Joseph Gilroy Cox, Rex Warfield	LA (SS)	81	Sandwich
Cox. Claude Gaylord	Aar	431	Macomb
Cox Don William	Agr CE	,02	Vandalia
COX, DOIL WILLIAM	CE 4		
Cox, Joseph Gilroy	BLA	32	Little Rock, Ark.
Cox. Rex Warfield	Agr	$71\frac{1}{2}$	Bement
Covle. Cassins Marcellus	Agr S		Gridley
Crobb Warren Willia		557	
Coyle, Cassius Marcellus Crabb, Warren Willis Craft, Glenn Ewing	Agr	551	Delavan
Craft, Glenn Ewing	Agr	59	Burlington
	EĒ		Medjord, Mass.
Craig Harold Cerrond			
Caria II and Total A D	Agr sp	224	Neponset
Craig, Hazel Iona, A.B., 1910	Mus	231	Champaign
Craig, James Orville	ME		Carthage
Craigmile, Charles James	CE	107	Rantoul
Craig, Harold Gerrond Craig, Hazel Iona, A.B., 1910 Craig, James Orville Craigmile, Charles James Craigmile, Charles Samuel			
Craiginite, Charles Samuel	EE	79	LaGrange

Craigmile, Mary	SS	71/2	Rantoul
Crain Chester McElfresh	BLA	54	Champaign
Crain, Chester McElfresh Crane, Dudley Winthrope	Agr		Montclair, N. J.
Crawford Chalmana	Agr	35	Pontiac
Crawford, Chaimers			
Crawford, Harold Hamilton	A	137	Rochester, Minn.
Crawford, Chalmers Crawford, Harold Hamilton Crawford, Helen Lucile	S	29	Shawnee, Okla.
(rehs John Powell	Agr		Carmi
Creighton, Edward Woodin	Agr	38	Fairfield
Creighton, Mary	LA	26	Fairfield
Creighton, Mary Elizabeth Cressner, Ford Scott	Agr (SS)	17-1	Phoenix, Ariz.
Cressner Ford Scott	BLA		Plymouth, Ind.
Criss, Edward	SS	121	Chambersburg
Crisss, Edward		122	Galesburg
Crissey, Sumner Ellis	Agr sp	110	
Christ, Edward Bernard	ME	110	Summit
Crittenberger, George Dale Croak, John Elmer Croce, Michele Francesco Croll, Hilda Marion Croll, Paul Revere	LA	69	Anderson, Ind.
Croak, John Elmer	CE		Decatur
Croce, Michele Francesco	Ch (SS)	100	Pauni-Faggia, Italy
Croll, Hilda Marion	HSLA		Beardstown
Croll, Paul Revere	Ch	107	Beardstown
Cromwell Myrtle Cornelia	HSLA		Parkman, Ohio
Cromwell William Force	S	28	Frankfort, Ky.
Cronivell, William Porce	HSAgr	68	
Cronk, Clara Gladys			Aurora
Cromwell, Myrtle Cornelia Cromwell, William Force Cronk, Clara Gladys Crooks, Harold Fordyce Crocky, Henry For	ME	118	Chicago
Crosby, Henry Fay Crose, John Otis	Agr sp	15	Detroit, Mich.
Crose, John Otis	Agr (SS)	62 <u>1</u>	Thorntown, Ind.
Crossland, George Marshall, A.B.,			
1901	BLA	159 2-3	Sheldon
Crossland, Viola June	HSAgr (SS.	) 954	Sheldon
Crow DeWitt Smith	MnE (SS)	64	Chatham
Crow, DeWitt Smith Crow, Jennie	SS	41	Martinsville
Crowder Positionin Harrison	L	622	Bethany
Crowder, Benjamin Harrison Crowe, Robert Burbank	A	48	
Crowe, Robert Burbank			Columbus, Ind.
Crowson, Edward Robert	BLA	90	Fulton, Mo.
Crowson, Edward Robert Crowther, Sarah Crutchfield, William	LA		Chicago
Crutchfield, William	$\boldsymbol{A}$	30	Chattanooga, Tenn.
Cruzan, Myrtle Amy	SS	19	Mattoon
Cummings, Harold Lane	BLA	30	Clinton
Cummings, Harold Lane Cummins, Wesley Erett	L		Olney
Cunningham Thomas Albright	BLA (SS)	981	Rossville
Cunningham, Thomas Albright Curl, Charley Edmund	ME (SS)	702	Paris
Curi, Charley Edinund	LA		Loda
Currie, Nannie		2.5	
Currier, Donald Eugene Curry, William Levi Curtis, Burton Tuttle Curtiss, George Curtius, Florence	Agr	25	Aurora
Curry, William Levi	EE (SS)	401	Camp Point
Curtis, Burton Tuttle	Agr		Decatur
Curtiss, George	Agr		Stockton
Curtius, Florence	Agr HSAgr		Carrollton
	BLA	46	Champaign
Cushman Ralph Farnsworth	Agr	91	Sylvania, Ohio
Cuthbert Dorothy Lucile	LA	36	Gilsum, N. H.
Cutton Taba	ME	75	Pana
Cutter, John			Dunnil Ind
Cushing, Donate Treuchek Cushing, Ralph Farnsworth Cuthbert, Dorothy Lucile Cutler, John Cutshall, Rudolph Walter Cutting, Harold Stothard Culloushi Vincent Dominic	A	91	Brazil, Ind.
Cutting, Harold Stothard	ME	37	Rockford
Cylkowski, Vilicelle Dollillie	CE	42	Chicago
Czapler, Max	Ch	36 <del>1</del>	Chicago
Dace, Fred Edwin	EE	74	Rushville
DaCosta, Harold Fonseca			Chicago
Deluinas II Walston	L		
	L CE	108	
Dahringer, Homer Walston Dainty, Chester Oakley	L CE Aar sb	108	Waukegan
Daininger, Homer Walston Dainty, Chester Oakley Lalbey, Everett Leslie	L CE Agr sp		Waukegan St. David
Dainty, Chester Oakley Dalbey, Everett Leslie	Agr sp L	57	Waukegan St. David Muncie
Daininger, Homer Walston Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Chesters	Agr sp L BLA (SS)	57	Waukegan St. David Muncie Winnetka
Dainty, Chester Oakley Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence	Agr sp L BLA (SS) AE	57	Waukegan St. David Muncie Winnetka So. Holland
Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence Dallenbach, Grace Belle	Agr sp L BLA (SS) AE HSLA	57 98	Waukegan St. David Muncie Winnetka So. Holland Champaign
Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence Dallenbach, Grace Belle Dallenbach, John Henry	Agr sp L BLA (SS) AE HSLA EE	57	Waukegan St. David Muncie Winnetka So. Holland Champaign Champaign
Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence Dallenbach, Grace Belle Dallenbach, John Henry	Agr sp L BLA (SS) AE HSLA EE	57 98 77	Waukegan St. David Muncie Winnetka So. Holland Champaign Champaign Cleburne, Texas
Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence Dallenbach, Grace Belle Dallenbach, John Henry	Agr sp L BLA (SS) AE HSLA EE SS A	57 98 77 99	Waukegan St. David Muncie Winnetka So. Holland Champaign Champaign Cleburne, Texas Metropolis
Dainty, Chester Oakley Dalbey, Everett Leslie Dale, Hervey Miller Dallenberg, Clarence Dallenbach, Grace Belle	Agr sp L BLA (SS) AE HSLA EE	57 98 77	Waukegan St. David Muncie Winnetka So. Holland Champaign Champaign Cleburne, Texas

Dammers, John William	Cer (SS)	59	Chicago
Danielson, Ralph Raymond	Cer	68	Chicago
Danner Ralph	Agr sp		Astoria
Daniel, Raipii	ME	75	Peru
Danz, Harry Otto	DIL	13	
Danielson, Ralph Raymond Danner, Ralph Danz, Harry Otto Dare, Harrison Newell	LA		Danville
Darrah, Howard Alexander Darrah, Juanita Elizabeth	Md	23	Champaign
Darrah, Juanita Elizabeth	S ChE	103	Champaign
Dass, Banesvar	ChF		Remodel India
D F .	A		Bengal, India Lima, Peru
Dasso, Luis	7.4	2.4	Lima, Fern
Dauberman, Margaret Lucile	LA	31	Mansfield
Daugherty, Hale Plahn	BLA (SS)	69	Peoria
Davidson, Allen Mayer	CE	2	So. Bend, Ind.
Davidson Mayme	22	2 3½	Marshall
Davids Daymond From	CE SS Md	66	Bement
Davies, Raymond Evan	DIG		
Davis, Allen Winslow	Agr	104	Maywood
Dasso, Luis Dauberman, Margaret Lucile Daugherty, Hale Plahn Davidson, Allen Mayer Davidson, Mayme Davies, Raymond Evan Davis, Allen Winslow Davis, Chester Emmons Davis, Chester Watson Davis, Clara Elizabeth	Agr sp	$11\frac{1}{2}$	Urbana
Davis, Chester Watson	Agr	111	Holton, Kans.
Davis, Clara Elizabeth	Mus		Urbana
Davis, Edward Chester	S		Holton, Kans.
Davis, Miss Frank Harris	Agr sp		Vincennes, Ind.
Davis, Harry Roscoe Davis, Mallie Leona	A		Anna
Davis, Mallie Leona	LA	100	Fairmount
Davis, Paul Newhall	Agr	301	Arlington Heights
Davis Runert Foster	S		Atlanta, Ga.
Davis, Rupert Foster Davis, Samuel Sylvester		41	Nambort
Davis, Samuel Sylvester	Agr	47	Newport
Davis, Thomas Andrew Davis, Thatcher Frank	CE		Bethany
Davis, Thatcher Frank	Agr	317	St. Louis, Mo.
Davison, Ruth Leone Dawson, Francis Anderton	LA	97	Marshall
Dawson, Francis Anderton	MSE sp		Reynolds
Dawson, Helen Mamie	TA	32	Morris
Dawson, Freien Maine	LA SS	71	
Dawson, Sallie	22	71	Marshall
Day, Anna Edith, A.B., (Illinois Coll.) 1907, A.M., 1908 Day, Phillmer Wymond			
Coll.) 1907, A.M., 1908	SS		Jacksonville
Day, Phillmer Wymond	ChE (SS)	105	Indianapolis, Ind.
Deakman, Homer Ward	CE	37	Chicago
Dean, Beatrice Earle	LA (SS)	37 7	Harrisburg
Dean, Olive Gertrude	LA		Harrisburg
Deali, Olive Gertrude	EE	2.2	
Decker, Benjamin Harrison Decker, Dorothy Mary Deets, Harold Burton		33	Brazil, Ind.
Decker, Dorothy Mary	LA		Urbana
Deets, Harold Burton	Agr	891	Galesburg
DeForest, Lemuel Degen, Albert Gustav Deiss, William Charles DeLong, Williard Earl DeLony, Lawson Leonard	ME	80	Toledo, Ohio. Kansas City, Mo.
Degen Albert Gustav	AE		Kansas City Vo
Deice William Charles	EE	27	Carlinville
Delss, William Charles		61	
DeLong, Willard Earl	BLA		Foosland
DeLony, Lawson Leonard	A	68	Little Rock, Ark.
Demerath, LeRoy Demlow, Lester Christopher DeMott, Roy VanLiew	ME		Kewanee
Demlow, Lester Christopher	SS		Champaign
DeMott Roy VanLiew	BLA	63	Crookston, Minn.
Demoster Charles	ME	00	Chicago
Dempster, Charles	CE	43	
Demuin, Jack Erwin	CC		St. Louis. Mo.
Denison, Sidney Alexander	22.	8	Keokuk, Iowa
Denney, Helen Ruth			
Dennis, Mabel Evangeline	HSLA	13	Aurora
Danner Manda Annua	CE SS HSLA LA	13 24	Aurora
	LA	13 24	Aurora Maywood
Denry, Maude Aroma	LA Mus	13 24 67	Aurora Maywood Lincoln
Denry, Maude Aroma Denz, Raymond Edward	LA Mus LA	13 24 67	Aurora Maywood Lincoln Decatur
Denz, Raymond Edward Derby, Sylvester Randall	LA Mus LA EE	13 24 67	Aurora Maywood Lincoln Decatur Morgan Park
Demoster, Charles Demyster, Charles Demuth, Jack Erwin Denison, Sidney Alexander Denney, Helen Ruth Dennis, Mabel Evangeline Denny, Maude Aroma Denz, Raymond Edward Derby, Sylvester Randall Detering, Oscar Casper	LA Mus LA EE BLA	13 24 67 37 26	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo.
Damina Hashast	LA Mus LA EE	13 24 67	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo.
Damina Hashast	LA Mus LA EE BLA	13 24 67 37 26	Aurora Maywood Lincoln Decatur Morgan Park
Damina Hashast	LA Mus LA EE BLA ME BLA	13 24 67 37 26 75 20	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford
Damina Hashast	LA Mus LA EE BLA ME BLA HSLA	13 24 67 37 26 75	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis.
Damina Hashast	LA Mus LA EE BLA ME BLA HSLA	13 24 67 37 26 75 20 61	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana
Damina Hashast	LA Mus LA EE BLA ME BLA HSLA LA LA	13 24 67 37 26 75 20	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana
Damina Hashast	LA Mus LA EE BLA BLA HSLA HSLA LA LA	13 24 67 37 26 75 20 61	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind.
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer	LA Mus LA EE BLA ME BLA HSLA LA LA BLA BLA ChE	13 24 67 37 26 75 20 61 113 28	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind.
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer	LA Mus LA EE BLA ME BLA HSLA LA LA BLA BLA ChE	13 24 67 37 26 75 20 61	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind.
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer Dickerson, Earl Burrus	LA LA LA EE BLA ME BLA HSLA LA LA BLA ChE LA (SS)	13 24 67 37 26 75 20 61 113 28	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishbeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind. Quincy St. Louis, Mo.
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer Dickerson, Earl Burrus Dickey, Ruby	LA Mus LA EE BLA ME BLA HSLA LA LA ChE LA (SS) HSAgr	13 24 67 37 26 75 20 61 113 28	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishbeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind. Quincy St. Louis, Mo. Sparta
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer Dickerson, Earl Burrus Dickey, Ruby Dickhut, Sherrill Edward	LA Mus LA EE BLA ME BLA HSLA LA LA BLA ChE LA (SS) HSAgr AE	13 24 67 37 26 75 20 61 113 28 91	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind. Quincy St. Louis, Mo. Sparta Quincy
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer Dickerson, Earl Burrus Dickey, Ruby Dickhut, Sherrill Edward	LA Mus LA EE BLA ME BLA HSLA LA LA LA LA LA LA LA ChE HSAgr AEAgr	13 24 67 37 26 75 20 61 113 28	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishbeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind. Quincy St. Louis, Mo. Sparta Quincy Sidell
Devine, Herbert Dewey, Ritchie Park Dewey, Vivian Persis Dexter, Grace Ella, A.B., 1911 Dexter, Lulu Belle Dibell, Harry Charles Dick, Willis Elmer Dickerson, Earl Burrus Dickey, Ruby	LA Mus LA EE BLA ME BLA HSLA LA LA BLA ChE LA (SS) HSAgr AE	13 24 67 37 26 75 20 61 113 28 91	Aurora Maywood Lincoln Decatur Morgan Park St. Louis, Mo. Ishpeming, Mich. Rockford Kenosha, Wis. Urbana Urbana Wolcott, Ind. Quincy St. Louis, Mo. Sparta Quincy

Dieppenbacher, Martha Mitchell	SS	101	Havana
Dietmeier, Clarence Richard Dietzer, Alice Margaret Diggs, Charles Henry	BLA		Winslow
Dietzer Alice Margaret	HSLA	30	LaGrange
Diggs Charles Henry	Agr	50	Clear Lake, Ia.
Dillares Food Por	LA	34	
Dillavou, Essel Ray Dillavou, Roscoe Clarke	LA	57	Champaign
Dillavou, Roscoe Clarke	TTCA	3/	Champaign
Dille, Lavinia Faye	HSAgr		Grand Ridge
Dillon, Chester Charles Dillon, Owen O'Neil	S L sp	142	Normal
Dillon, Owen O'Neil	L sp		Shipman
Dilworth, James Russell Dingledine, Ira Wilbur	Agr SS	115	Table Grove
Dingledine, Ira Wilbur	SS	112	Peoria
Dirks, Bernhard Ernst George	A	571	Dresden, Germany
Dirks, Bernhard Ernst George Dirst, Wendell Fletcher Dix, Earl Joseph Doane, Harry Charles	Agr sb		Minooka
Dix. Farl Joseph	Agr sp EE (SS)	33	Marseilles
Doone Harry Charles	RIA	7	Newton, Iowa
Dobbins Verne Foster	Agr sp EE (SS) BLA EE	40	Urbana
Dobbins, verne roster	TA	60	
Dobbins, Verne Foster Dodds, Eva Dodds, Lois Ellen	LA LA LA	00	Champaign
Dodds, Lois Ellen	LA		Champaign
Dodds, Marie Marguerite	LA	51	Champaign
Dodge, Hovey Worsdell	EE		So. Bend, Ind.
Dodge, Margaret Rapelye	LA		Champaign
Dodds, Marie Marguerite Dodge, Hovey Worsdell Dodge, Margaret Rapelye Doemling, Leo William	ME	19	Chicago
	AE	112	Chicago
Doherty, Francis Laurence Doisy, Edward Adelbert Dole, Ethel Mary Dole, Leslie Abijah	Agr		Urbana
Doisy Edward Adelhert	Md	80	Champaign
Dole Ethel Mary	HSAgr	46	Manteno
Dolo Loclio Abiich	EE	108	Manteno
Dole, Leslie Abijan	EE (CC)		
Domas, Justin Aloysius	EE (SS)	64	Shelbyville
Donahoe, John Thomas	EE	74	Chicago
Donaldson, Clyde Wellington	Md	431	Springfield Urbana
Donaldson, Elyzabeth Frances	SS	100₺	Urbana
Donaldson, Clyde Wellington Donaldson, Elyzabeth Frances Donaldson, Harold James	Agr		Polo
Donaldson, Helena Josephine	Agr SS	21/2	Urbana
	ME	37	Mattoon
Donnell, Allan Douglas Donovan, James Leslie Doocy, Clara Louise Dooley, Hubbard Errette Dooley, Irene Dorr, Mabery Iris Dorris, Sylvanus Alpheus Dorsey, William Eugene Dougan, Frances, Bernice	\$\$ \$\$		Champaign
Doocy Clara Louise	22	18	Pittsfield
Dooley Hubbard Errette	BLA	69	Rock Island
Dooley, Trans	LA	07	Baton Rouge, La.
Done Mohama Tain	Mus		Rantoul
Dorr, Madery Iris		71	
Dorris, Sylvanus Alpheus	SS	$7\frac{1}{2}$	Urbana
Dorsey, William Lugene	BLA		Robinson
	HSLA		Urbana
Dougherty, Horace Gladstone Douglas, Raymond Thomas	SS	81/2	Washington
Douglas, Raymond Thomas	ME	101½	Southampton, Mass.
Dow, Harvey Richard	BLA		Geneva
Dow, Harvey Richard Downey, Durbin Ralph Downing, Toliver Mac	EE		Sheffield
Downing, Toliver Mac	E		Macomb
Doyle, John Francis Dralle, Henry Edward	$\widetilde{B}LA$		Champaign
Dralle, Henry Edward	EE		Coatsburg
Dresser, Myron Amos Drew, Edgar Nathan Drew, Mildred Evangeline Drew, Nellie Blanche	BLA		New Berlin, N. Y.
Drew Edgar Nathan	A	110	Watseka
Drew Mildred Evangeline	ĹΑ	21	Joliet
Drow Mollie Planche	HSAgr	21	
Dreate Levis Anthony	BLA	26	Slater, Mo. Grand Rapids, Mich.
Droste, Louis Anthony Dubin, George Harold		26	Chi-
Dubin, George Harold	A	76	Chicago
Dubin, Henry	A	39	Chicago
Dubois, Henri	Agr sp	115	
DuBois, Lucille DuBois, Martha Harriett	SS HSLA	8	East Peoria
DuBois, Martha Harriett	HSLA	34	Eldorado
Dufrain, Frank James	LA (SS)	68	Momence
DuHadway, Fred Alan Dummer, James Byron Duner, Swen	L		Jerseyville
Dummer, James Byron	L L		Chicago
Duner, Swen	Agr	331	
Dungan, Cornelius Peter, Ir	LA	002	Oak Park
Dungan, Cornelius Peter, Jr. Dunham, Lawrence Henry	ChE	34	LaSalle
Dunham, Raymond Starr	Agr	99	Chicago
Dunham, Richard	Agr EE	37	Vinton, Iowa
Dumain, Richard	LL	31	, mon, rowa

Dunlap, David Woods	Agr	69	O'Fallon, Mo.
Dunlap, Effie Charlotte	LA	52	Urbana
Dunlap, Effie Charlotte Dunlap, Fanny, Ph.B. (Univ. Iowa)			015 11 11
1905 Dunlap, Francis Ellsworth	Lb AE	33	O'Fallon, Mo. Maywood
Dunlap, Matthew Elbridge	AE	67	Maywood
Dunlap, Matthew Elbridge Dunlap, William Guy Dunn, Elizabeth Moore Dunn, Wilbur Galen	BLA	56	Abingdon
Dunn, Elizabeth Moore	LA		Bellflower
Dunn, Wilbur Galen	AE	72	Onaga, Kans.
Dupuy, Genevieve Durr, Samuel Abraham	HSLA ME	32	Chicago Chicago
Dutton, Marshall Simeon	CE	36	Oak Park
Dyar, Herbert Lee	CE SS		Low Point
Dyrenforth, Lucien Young	Agr		Oak Park
Dysart, Benjamin Quincy Eade, Ben Cooper	S Agr		Granville Elizabeth
Eade, Gladys	LA	98	Elizabeth
Eales, Henry Clarence	Agr	97	Bloomington
Eales, Henry Clarence Early, Recia Wilma	SS.	41/2	Tuscola
Earhart, Charles Martin	A	40	Chrisman
East, Bess Eaton, Rex Carr	LA Agr sp		Anderson, Ind. Greeley, Colo.
Faton William John	SS	16	Vandalia
Eberhart, Myra Ebersole, Elmer Tryon, A. B., 1902	HSLA	89	Newton, Ia.
Ebersole, Elmer Tryon, A. B., 1902	Agr (SS)	1421	Ottawa
Eckstein, Henry Charles	Ch	57	Peoria V V
Edgar, Edith Edmundson, Jessie Fay	LA HSS (SS)	33 89 <del>1</del>	Copenhagen, N. Y. Balbec, Ind.
Edwards, Adrian Clair	LA	0/2	Roodhouse
Edwards. Morgan Fred, Jr.	Agr		Chicago
Eggert Glenn Hallis	EE	100	Canton
Ehrhart, Raleigh John	EE HSAgr	108	Arcola
Ehrhart, Raleigh John Eicher, Eugenia Eide, Alwin Clyde	ChE	32	Chicago Lee
Eisner, Mrs. Albert I., B.Mus., 1908	Mus sp		Champaign
Ekstrand, Henry Emanuel	A	25	Weukegan
Elberson, Georgia Eliason, Rolla Jasper	SS	8	Perrysville
Ellason, Rolla Jasper Elles, Edward Charles	Agr sp BLA	41± 32	Zion City Herrin
Elliott, Arthur Roland	Agr	22	Tonica
Elliott, Arthur Roland Elliott, Dana Milton Elliott, Edna Elizabeth	Cer		Matteson
Elliott, Edna Elizabeth	SS	181	Savanna
Fillott, Gertrude Louise	HSAgr Cer	101 32	Tonica Crossville
Elliott, Ivan Arvel Ellis, Charles Joseph	LA	52	Springfield
Ellis, Frances Irene	HSLA		Altamont
Ellis, George Curtis	Md	58	Altamont
Ellis, Harvey	BLA HSS		Evanston Genoa
Ellithorpe, Lina Almeda Elmendorf, Armin	ME	91	San Antonio. Texas
Elston, Alexander	Md	138	Wheeling, Va.
Elston, Alexander Elston, Leo Weiss	S	100	Wheeling, W. Va.
Elton, Alexander Stuart Emigh, Hazel Lenore	ME	26	Oak Park
Emigh, Hazel Lenore Emmond, Wyatt Goen	LA BLA	26	Knox, Ind. LaGrange
Engle. Jeanette Morrison	LA	30	Urbana
Engle, Ralph Nelson	Agr	49	Urbana
Engle, Jeanette Morrison Engle, Ralph Nelson Englis, Duane Taylor, A.B. (Eureka	CC	0	D La
(.oll.) 1912	SS Md	8 68	Eureka Urbana
English, Lloyd Hayden	Md	21	Chicago
English, Hubert Morton English, Lloyd Hayden Eninger, Helen Marie	LA (SS)	60	Cisna
Elinis, Comstus James	BLA	72	Chicago
Ensign, Newton Edward, A.B. (Ox-	22		Tichana
ford Univ.) 1908, B.S., 1911 Eppinger, John George	SS LA (SS)	8	Urbana Quincy
appinger, John Ocorge	211 (00)		2

Eppsinger, Marie Anna	LA (SS)		Quincy
Epstein, Arthur Louis Eriksen, Julia Louise Ermeling, Lewis Brown	MSE	105	Bloomington
Eriksen, Julia Louise	LA (SS)	53	Newark
Ermeling, Lewis Brown	ME	114	Chicago
Ernest, Ruth	LA (SS)	311	Urbana
Ernest, Ruth Ernst, Carl Paul Ernst, Elmore George	CE	6	
Ernet Elmore Cearge		0	Chicago
Family Clinton Otio	A		Visalia, Calif.
Erwin, Clinton Otis Erwin, Walter Boynton	EE sp		Macomb
Erwin, waiter Boynton	BLA	30	Chicago
Eschauzier, Louis	Agr sp	$25\frac{1}{2}$	S. Luis Potosi, Mex.
Escobosa, Guillermo Filiberto	Agr	106	Guadalajara, Mex.
Eslick, Leo	ME	39	Lead, S. D.
Essington, Arthur Vernon	L	28	Clifton
Estes, Earl Carter	LA		Richmond, Mo.
Etherton, James Everette	L	52	Carbondale
Etherton, James Everette Etienne, Leonard Arthur	ĒE	32	Centerville Station
Evans Arthur Thompson A B 1012	55		
Evans, Arthur Thompson, A.B., 1912 Evans, James Miles	SS LA		Champaign
Evans, James Wiles	LA		Chicago
Everhart, Philip Hiram	LA		Champaign
Eyman, Ralph Lee	Agr (SS)	57	Golden
Fackler, Orpheus A. Fackler, Walter Valentine	SS L	8	Erie
Fackler, Walter Valentine	L		Champaign
Fagan, Ona Mary Fager, Daniel Baldwin Fager, Frank Daniel	SS SS	34	Pontiac
Fager, Daniel Baldwin	22	30₩	Vandalia
Fager, Frank Daniel	FF	121	Vandalia
Fahrnkopf, Emma Margaret Farnkopf, Harrison Fred Theodore Fairbanks, Berthier Wesley Fairchild, Bert Fairchild, Donald Hurlstone	HCC (CC)		
Farnkopf Harrison Fred Theaders	HSS (SS)	108	Urbana
Painkopi, Harrison Fred Theodore	Agr	$120\frac{1}{2}$	Urbana
Fairbanks, Berthier Wesley	Agr		Chicago
Fairchad, Bert	Agr	26	Danville
Fairchild, Donald Hurlstone	S	24	Paxton
L'anneill, fielen	NSLA	74	Chicago
Fajardo, Euripides v M.	CE (SS)		S. Luis Oriente, Cube
Fallis, Myrlin Stein	AE	70	Denver, Colo.
Fancher, Hazel Elizabeth	LA	107	Evanston
Fancher, Hazel Elizabeth Farlow, Samuel James Farmer, Orena	AE	751	Augusta
Farmer Orena	LA	132	
Farnham, Albert Ayrton			Belleville
Forthing Charter II- and D.C. (36)	ME		Westfield, Mass.
Farthing, Chester Harold, B.S. (Mc-			
Kendree Coll.) 1909	L	57	Odin
rartning, William Dudley Paul, B.S.			
(McKendree Coll.) 1909	L	59	Odin
Farwell, Stanley Prince, B. S., 1907,			
M.S., 1910 Fasold, Miriam Rebecca	SS		Chicago
Fasold, Miriam Rebecca	LA	2	St. Louis, Mo.
Fast Clarence Mortimer	EE	-	Tulsa, Okla.
Faulkner Fay Edward	S	31	
Faultmer Leglic William	EE		Champaign
*Found Tudd Decetes	EE	74	Champaign
Faurot, Judd Freston	EE	108	Danville
Faurote, Guy Columbus	A	35	Niles, Mich.
Faulkner, Fay Edward Faulkner, Leslie William *Faurot, Judd Preston Faurote, Guy Columbus Fedde, Ruth Catharine	HSLA	22	Peotone
Fehrman, Claribel Fehrman, Florence Feldman, Joseph Elmer Felger, Walter Blaine Feller, George Capron	S	117	Pekin
Fehrman, Florence	LA	32	Pekin
Feldman, Joseph Elmer	Agr	311	Morrison
Felger, Walter Blaine	ME (SS)	36	Milmine
Feller, George Capron	CerE		Kansas City, Mo.
Fellows, James Daniel	BLA	421	St Charles
Felmley Mildred Helen	LA	103	St. Charles Normal
Fellows, Tames Daniel Felmley, Mildred Helen Felter, Mary Emma	HSLA	103	
Ferguson Clarence Milford	ASLA	24	Eureka
reignson, Clarence Willord	A	34	Charles City, Ia.
Ferguson, Cleveland Frank	Agr		Annawan
Ferguson, Florence Roxana	HSLA		Annawan
rerguson, Jean May	SS	22	Chicago
Ferguson, Florence Roxana Ferguson, Jean May Ferguson, Louis Smith	ME	125	Annawan
Fernandez, Carlos S	Agr	31	Chihuahua, Mex.

<sup>\*</sup>Deceased Oct. 1, 1912.

Ferrell, Cyrus Porter	EE		El Paso
Ferrell Dont	EE (SS)	1131	Carterville
Ferrell, Dent Ferrell, Raymond Pola			
Ferrell, Raymond Pola	Md	27	Harrisburg
Fetherston, James Edward Fetherston, John Moffat	Md (SS)	20	Chicago
Fetherston, John Moffat	EE (SS)	74	Chicago
Feutz, Frank Christian	CE	74	Olney
Fickett Flizzbeth Dean	HSLA		Chicago
Fickett, Elizabeth Dean Field, Roswell Francis	C	503	Port Lavoca, Tex.
rield, Roswell Flancis	S		
Fielder, William Fuller Fienhold, William	2	83	Chicago
Fienhold, William	Agr	60	Pontiac
Fiero, Elmer Ellsworth	LA (SS)	69	New York City
Fifield, Clarence Eugene	LA		Urbana
Finfrode Change Lawrence	1 (99) 1	15	Urtana
Finfrock, Chancy Lawrence Finn, Edmund Matthew	L (SS) AE	13	Lagrance Macc
Finn, Edmund Matthew	AE	~ 1	Lawrence, Mass.
Finney, Stella Belle	SS	7 ½	Bismark
Firehaugh, Richard David	EE		Robinson
Fischer, Ferdinand August Paul Fischer, Henry Laurence, A.B.	AE	1471	Chicago
Fischer, Henry Laurence, A.B.			
(Wheaton Coll.) 1910	ME (SS)	134	Wheaton
(W neaton Coll.) 1910		137	
Fischer, Walter Rathfon	Md		Chicago
Fish, Julian Lorensbury Fisher, Abigail Eliza Fisher, Benjamin Sidney	Agr	<i>33</i>	Chicago
Fisher, Abigail Eliza	LA	50	Geneseo
Fisher Benjamin Sidney	L	52	Anderson, Ind.
E'-1 - E	BLA	6	Chicago
Fisher, Erwin Fisher, Eva Josephine Fisher, Helen Vastine Fisher, Walter Lloyd			
Fisher, Eva Josephine	LA	88	Champaign
Fisher, Helen Vastine	LA		Geneseo
Fisher, Walter Lloyd	RCE	92	Union City, Ind.
Fighteigh Cladus Dudge	L.4	60	Chicago
rishleigh, Gladys Ryder		00	
Fishleigh, Gladys Ryder Fisk, Roy Vincent Fitzgerrell, Sylvester Stanton	Agr sp		Prophetstown
Fitzgerrell, Sylvester Stanton	Agr		Benton
Fitzpatrick, James Charles	CerE	27	Bessemer, Ala.
Fleck, Arthur William Fleig, Frederic Raymond	A	6	Indianapolis, Ind.
Elain Fraderic Daymond	BLA	60	Belleville
Fleig, Frederic Raymond			
Fletcher, Charles Harrison Fletcher, John Archibald Fletcher, O Frank	L	54	Ridgefarm
Fletcher, John Archibald	Agr	75	Chicago
Fletcher, O Frank	LA		Ridgefarm
Flickinger, Pauline Elizabeth	LA (SS)	11	Atwood
El-din Harald I on	ME	42	Chicago
Flodin, Harold Leo Flood, Wilber Earl			
Flood, Wilber Earl	CE	110	Peoria
Flowerree, Trennace	Agr	100	Easton
Fly, Vivienne Elizabeth Fogg, Alden Knowlton Fong, Gooey Yue Fong, Mon Charles	LA		Mt. Vernon
Forg Alden Knowlton	CE	37	McConnell
Form Coopy Vive	CE	••	Canton, China
Folig, Goody Tue	CE		Canton, China
Fong, Mon Charles	CE		Canton, China
Fontaine, Everett Orren	LA	34	Momence
Ford, Albert Gallatin	Agr	29 <del>1</del>	Geneva
Ford, Edith Harley, Ph.B. (Univ.			
Chicago) 1910	Lb	32	Rockford
Chicago) 1910	ME	18	Galva
Ford, Everett Porter			
Ford, Nellie Corey	BLA	4	Rockford
Fordtran, Arthur Edmund	BLA		Blue Island
Forkey Mildred Lillian	HSAgr		Prophetstown
Fornoff Gustav George	EE	120	Chicago
Forkey. Mildred Lillian Fornoff, Gustav George Forster, William Edmund		120	Chicago
Forster, William Edmund	Agr	4.3	Chicago
Forsythe, Lawrence Gibson	CE	$1\frac{1}{2}$	Kansas City, Mo.
Fort, Lyman Marion	S	101	Stronghurst
Forty, Frank Alfred Foster, Donald DeVere Foster, Edward Burdell Foster, Edmond Roy	EE	37	Chicago
Foster Donald DeVere	BLA	64	Boswell, Ind.
Foster Edward Bordell		201	Aurora
roster, Edward Burden	Agr sp		
Foster, Edmond Roy	$A_{\perp}$	76	Mclrose Park
Foster, Frank Ward	EE sp		Alexis
Foster, Harry Llewellyn	AE	1141	Milwaukee, Wis.
Foster, John Raymond	Agr (SS)	89	Sac City, Iorga
Foster, Harry Llewellyn Foster, John Raymond Foster, Ora French	100	711	Sac City, Iowa Paxico, Mo.
Poster, Ora French	Agr	112	Dutland
Foucht, Cecil Roy	EE		Rutland
Foulke, Claude Clifton	BLA		Worthington, Ind.

Fowler Leland Stanford	S		Penfield
Fowler, Leland Stanford Fowler, Wiley Marion	LA	37	
Fowler, Wiley Marion	La	31	Penfield
Fox, David Leroy	Agr sp		Palestine
Fox, James Leslie	MSE		Englewood, N. J.
Fragoso, Gilberto	CE		Durango, Mex.
Fragoso, Giberto	SS	717	I a Famelta
Frail, James Eddis	22	111	La Fayette
Frailey, Lester Lugene	LA	81	Urbana
Francis, Fred David Francis, Helen Elizabeth	SS	8	Bridgeport, Ind.
Francis II-las Elizabeth	LA	•	Wyoming
Francis, Helen Elizabeth			
Francke, Hallie Herman Frank, William Leonard	Agr sp	10½	Thomson
Frank, William Leonard	S	112	Carthage
Francon Thoodore John	AE (SS)	117	Peoria
Franzen, Incodore John		111	
Fraser, Mrs. Alice Laton	Mus sp		Aurora
Fraser, Reginald Simon	CE		Lead, S. D.
Fraver Dick Sulvester	CE (SS)	64	Maywood
Franzen, Theodore John Franzen, Mrs. Alice Eaton Fraser, Reginald Simon Frayer, Disk Sylvester Frazee, Anna Dora	7 4	16	
Frazee, Anna Dora	LA		Morveaqua
Frazee, Russell Card	Agr	66 <del>1</del>	Morris
England Combato	Agr	321/2	Lockport
Frazer, George Carlyle Frazier, James B, Jr. Frazier, Philip Freark, Parke West Freels, John William	Agr (SS) ME	46	Paris
Frazier, James D, Jr.	797 (33)		
Frazier, Philip	ME	31	Aurora
Freark, Parke West	MSE		Springfield
Freels John William	LA		E. St. Louis
Piccis, John William		24	
Freeman, Herbert Verne Freeman, Marie Freeman, Ruth Mae French, Guy Russell French, Henry Helm French, Ralph Waldo	A	24	Indianapolis, Ind.
Freeman, Marie	HSS	102	Decatur
Freeman Ruth Mae	LA	957	Bloomington
Freeman, Ruth Mac			
French, Guy Russell	SS	$16\frac{1}{2}$	Eureka
French, Henry Helm	RME	80	Chicago
French Ralph Waldo	Agr	63	Magnolia
Titlett, Raiph Waldo	ĈĔ	02	
Friendo, Sidney Fritchey, Theodore Augustus, Jr. Froebe, Elmer Nicholas			Chicago
Fritchey, Theodore Augustus, Jr.	BLA	104	Olney
Froehe, Elmer Nicholas	Agr		Chatsworth
Froeblich, Hugo Ferdinand Froyd, Melvin Frankford Fruin, Elizabeth Fry, Albert Stevens Fry, Eliwood Ray	EE	351	St. Louis, Mo.
Froenich, riugo Ferdinand			
Froyd, Melvin Frankford	Md	41	Paxton
Fruin, Elizabeth	HSS	101	El Paso
En Albert Starrang	CE	108	Urbana
rly, Albert Stevens			
Fry, Ellwood Kay	Agr	51	Rock Island
Fulks, Harry Catlin	BLA	101	Beardstown
Fuller, Clarence Malcolm	MSE	107	Lawrenceville
Puller, Clarence Marconn		34	
Fuller, Harold Coulon	A	34	Indianapolis, Ind.
Fuller, Orville Melvin	Agr		Beardstown
Fullerton, Theron Bushnell	Agr	39	Ottawa
Fulton Com Chandles	A	39	Warsaw
Fulton, Guy Chandler Fulton, Roy Abbott		37	
Fulton, Roy Abbott	EE		Springfield, Mo.
Fulwider, Byron Simmons	BLA		Freeport
Funk Frank Wilmer	Agr sp		Beverly
Funk, Frank Wilmer Funkhouser, Earl A Furbeck, Stanley Brooks	SS	911	Atlanta, Mo.
Funknouser, Earl A	33	>12	Allania, Mio.
Furbeck, Stanley Brooks	ME		Oak Park
Furukawa, Sozabu	A	109	Saga-Ken, <b>Japan</b> Bedford, <b>Indiana</b>
Furst, Philip Carl	A		Rodford Indiana
Call Car Elman		68	
Gable, George Elmore	A		Cedar Rapids, Ia.
Gaddis, Albert Macy	EE	77	Modoc, Ind.
Gable, George Elmore Gaddis, Albert Macy Gaddis, Henry Elisha	BLA	107	Modoc, Ind.
Carra Danier Frances	Agr sp	20,	Seneca
Gage, Byron Fremont	Ayr sy		Seneca
Gage, John Howard Gage, Marjorie Harriett Gage, Robert Percy	S		Texico
Gage, Mariorie Harriett	Mus sp (S	S) 737	Champaign
Gage Robert Percy	Agr	691	Elgin
Callact an Assa Maria			
Gallagher, Anna Marie Gallaher, Harold Galpin, Stella Belle, A.B. (Knox	LA	63	Chicago
Gallaher, Harold	EE		Tiskilwa
Galpin, Stella Belle, A.B. (Knox			
Call 1011	7 %		Galesburg
Coll.) 1911	Lb	2.0	Gulesoury
Gamble, Clare Curtiss	BLA	33	Malone, N. Y.
Gamble, Clare Curtiss Gamble, Donald Tunnicliffe	Agr	70 <del>1</del>	Kewanee
Came Incenhine Louise	Agr SS	82	Chatsworth
Cantia Annal Charles	Ch	2.0	
Gandia, Angel Charles	Ch		Manaté, P. R.
Ganser, Alice	LA sp		Aurora
Game, Josephine Louise Gandia, Angel Charles Ganser, Alice Gants, Elwyn Tracy	ME .		Wenona
,,			

Gardiner, John Low	ME	41	Chicago
Gardiner, John Low Garrett, James Franklin Garrett, Louise Wallace	ChE	87	Kinmundy
Garrett, Louise Wallace	LA	96	Champaign
Garrett, Louise Wallace Garritson, Hillard DeWitt Garten, William Raymond Garwin, Henry Barnette Gaskill, Della Alice Gately, Frederick Wortman Gates, Carleton Willard Gates Harriet Flizabeth	BLA		Marion, Ind.
Garten, William Raymond	CE SS	64	Odon, Ind.
Garwin, Henry Barnette	22.		Pittsfield
Gaskill, Della Alice	HSS	68	Joliet
Gately, Frederick Wortman	EE		Chicago
Gates, Carleton Willard	EE	109	Elgin
Gates, Harrice Elizabeth	HSS	37	Chicago
Gates, Minnie Louise	Mus	11	Urbana
Gauger, Joseph Frederick Gauger, Marguerite Elston Gauger, Paul Charles	Agr	×021	Champaign
Gauger, Marguerite Elston	HSS AE	1031	Champaign
Gauger, Paul Charles	AE	120	St. Paul, Minn.
Gauger, Raymond Wallace	A	* 7.0	Champaign
Gauger, Raymond Wallace Gaut, Rosa-Lee, B.Mus., 1912 Gay, Strawn Aldrich	LA	130	Knoxville, Tenn.
Gay, Strawn Aldrich	A(SS)	108	Ottawa
Gayle, Robert Edwin	Agr sp CE		Lincoln
Gayton, Loran Delancey	CE	58	Worcester, Mass.
Gee, Claude Earl	EE	92 <del>1</del>	Lawrence, Kans.
Gehant, Evelyn Ella Gehant, Rosalie Florence	HS.Agr		Diron
Genant, Rosalie Florence	HSAgr		Dixon
Geherty, Celeste	LA	~ 0	Winnetka
Gehrig, Arthur Gustave Gehrig, Edward Franklin	CE ME	70	New Douglas
Gehrig, Edward Franklin		26	Grantfork
Geisendorfer, Kail Edward	Agr	2.0	Pittsfield
Geitner, Herman Isaac	S	32	Chicago
Gemberling, Cameron Houtz	RCE	37	So. Bend, Ind.
Gemmill, Josephine Alberta	HSAgr	32	Sparta
Gentle, George Edward George. Leslie Godfrey	Agr	1021	Farmington
George. Leslie Godfrey	LA	28	Staunton
Gere, Helen Beatrice	HSLA	65	Urbana
Getman, Roy Lyle	CE	93	Harvard
Geyer, Grace Mildred	HSLA	277	Roswell, N. Mex.
Getman, Roy Lyle Geyer, Grace Mildred Geyer, Howard Almon Gibbs, Paul Hedges	Agr ME	26½	Rock Falls
Gibbs, Paul Hedges		112	Westfield, Mass.
Gibson, Mable Helen	HSAgr	51	Woodstock
Gibson, Paul Y	Agr	0.2	Peoria
C' 11 . D. 1. '.1 T 1 .			O44
Giehler, Frederick John	AE	82	Ottawa
Giehler, Frederick John Giep, Lula Maud	SS	71/2	Champaign
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson	SS MSE		Champaign Peoria
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda	SS MSE HSLA	$\frac{7\frac{1}{2}}{110}$	Champaign Peoria Lockport
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda	SS MSE HSLA CE	71/2	Champaign Peoria Lockport Champaign
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman	SS MSE HSLA CE LA	7½ 110 50	Champaign Peoria Lockport Champaign Mt. Vernon
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie	SS MSE HSLA CE LA HSS	$7\frac{1}{2}$ $110$ $50$ $64\frac{1}{2}$	Champaign Peoria Lockport Champaign Mt. Vernon Hudson
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles	SS MSE HSLA CE LA HSS	$7\frac{1}{2}$ $110$ $50$ $64\frac{1}{2}$ $110$	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey. John Ray	SS MSE HSLA CE LA HSS Agr SS	7½ 110 50 64½ 110 36½	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey. John Ray	SS MSE HSLA CE LA HSS Agr SS Agr	$7\frac{1}{2}$ $110$ $50$ $64\frac{1}{2}$ $110$	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble	SS MSE HSLA CE LA HSS Agr SS Agr Agr	7½ 110 50 64½ 110 36½ 59	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr	7½ 110 50 64½ 110 36½	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr	7½ 110 50 64½ 110 36½ 59 20½	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr LA	7½ 110 50 64½ 110 36½ 59 20½ 35	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr LA	7½ 110 50 64½ 110 36½ 59 20½	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys Girhard, George M Glassco, Roy Thomas Glenn, Edvar Wilson	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr LA	7½ 110 50 64½ 110 36½ 59 20½ 35	Champaign Peoria Lockport Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys Girhard, George M Glassco, Roy Thomas Glenn, Edvar Wilson	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr sp HSAgr HSAgr LA Agr sp CE SS	7½ 110 50 64½ 110 36½ 59 20½ 35 43	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gipatrick, Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton	SS MSE MSE MSE MSE LA CE LA HSS Agr Agr Agr sp Agr HSAgr LA Agr Sp CE SS ChE	7½ 110 50 64½ 110 36½ 59 20½ 35	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Neuton Charleston Hollon, Kansas Chicago Chicago
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gipatrick, Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton	SS MSE HSLA CE LA HSS Agr Agr sp Agr sp Agr sp CE LA Agr sp CE CE CE LA	7½ 110 50 64½ 110 36½ 59 20½ 35 43	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Cherleston Hollon, Kansas Champaign Chicago El Paso
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE HSLA CE LA LA HSS Agr SS Agr Agr sp Agr HSAgr LA Agr sp CE CE CHE LA MSE	7½ 110 50 64½ 110 36½ 59 20½ 35 43	Champaign Peoria Lockport Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Hollon, Kansas Chicago El Paso Chicago
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE MSE MSE MSE LA CE LA HSS Agr Agr Agr Agr Agr Agr Agr CE SS CE LA MSE Md	7½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Neuton Charleston Holton, Kansas Champaign Chicago El Paso Urbana
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE HSLA CE LA HSS Agr Agr sp Agr sp HSAgr LA Agr sp CE SS Che LA MSE Md Mus	7½ 110 50 64½ 110 36½ 59 20½ 35 43	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago El Paso Chicago Urbana Urbana
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE MSE MSE MSE MSE MSE LA LA MSS Agr Agr sp Agr sp Agr HSAgr LA Agr sp CE CHE LA MSE MMSE Md Mus L	7½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago El Paso Chicago Urbana Urbana Ottawa
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE HSLA CE LA HSS Agr Agr sp Agr sp Agr sp CE LA Agr sp CE SS CHE LA MSE Md Mus L AE	7½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago Urbana Urbana Urbana Urbana Moline
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE HSLA CE LA LA LSS Agr Agr sp Agr HSAgr LA Agr sp CE LA MSE MMSE MM MUS LA AE (SS)	7½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Mavengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago Urbana Urbana Ottawa Moline Plavo Moline Philo
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve. Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick. Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr LA Ge LA MSE MSE Md Mus L AE LA	77½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82 160	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago El Paso Chicago Urbana Uvbana Moline Philo Urbana
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gilpatrick, Gladys Girhard, George M Glassco, Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton Glessing, Barbara Frances Glick, Abe LeRoy Glover, Donald Mitchell Glover, Leonard Wood, A.B., 1912 Glover, Rodney Champlin Godehn, Reuel Ariel Godfrey, Eleanor Goebel, Irma Gretchen Goelitz, William Henry	SS MSE HSLA CE LA LA LSS Agr Agr sp Agr HSAgr LA Agr sp CE LA MSE MMSE MM MUS LA AE (SS)	7½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Mavengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago Urbana Urbana Ottawa Moline Plavo Moline Philo
Giehler, Frederick John Giep, Lula Maud Giessler, William Carson Giffin, Cora Amanda Gilbert, Irving Brown Gilbert, James Harman Gildersleeve, Mary Elsie Gilkerson, Harry Charles Gilkey, John Ray Gill, George Thallon Gillam, Winona Mayble Gilmore, Leonard Mason Gipatrick, Gladys Girhard, George M Glassco. Roy Thomas Glenn, Edgar Wilson Glenn, Eleanor Mae, A.B., 1907 Glenz, Edward Anton	SS MSE HSLA CE LA HSS Agr SS Agr Agr sp Agr HSAgr LA Ge LA MSE MSE Md Mus L AE LA	77½ 110 50 64½ 110 36½ 59 20½ 35 43 104 82 160	Champaign Peoria Lockport Champaign Mt. Vernon Hudson Marengo Hume Evanston Chicago Moline Plano Newton Charleston Holton, Kansas Champaign Chicago El Paso Chicago Urbana Uvbana Moline Philo Urbana

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Goff, Arthur Clark	Md		Staunton
Gohn, Lloyd Elias	LA (SS)	1191	Rochester, Ind.
Goldberg, Philip Hilton Golden, Wesley Barton Golden, Waldo Emerson	S	45	Chicago
Coldon Wooley Poston	BLA	22	
Golden, Wesley Barton		33	Champaign
Golden, Waldo Emerson	Md	32	Champaign
Goldman, Ellis Ralph Goldman, Rae	CE	66	Rockford
Coldman Pag	LA	841	
Goldman, Kac		077	Terre Haute, Ind.
Gonda, August	MnE		Posen, Prussia
Gonsior, Albert Gooch, Gretchen Louise Goode, Eslanda Elbert	CE	791	Chicago
Gooch Gretchen Louise	LA		Bellflower
Goodi, Gretchen Louise	LA TTOT A		
Goode, Eslanda Elbert	HSLA		Greenville
Gooding, Charles Wesley	SS S	30₺	Champaign
Goodman, Ezra	C	37	
Coodinan, Liza	77.07.4	31	Zitomir, Russia
Goodmann, Eva Marie Goodmann, Leola Ione	HSLA		Champaign
Goodmann, Leola Ione	HSLA	65	Champaign
Goodwin, Viola Gordon, Raymond Hall Gorges, Franz	LA		Hot Springs, Ark.
Coult D 1 TT 11	160		Ci. Springs, Ark.
Gordon, Raymond Hall	ME	36	Chicago
Gorges, Franz	CE	6	Chicago
	A	114	Chicago
Cauld Parat Plana	1	217	
Gould, Frank Elmer	A		Urbana
Gould, John, Jr.	Agr		Lake Forest
Gowdy, Max	Agr		Bloomington
Cookle Tales Chairting	C y		
Gould, Frank Elmer Gould, John, Jr. Gowdy, Max Grabbe, John Christian Grady, Edward Maurice	2		Urbana
Grady, Edward Maurice	Cer	17	Bloomington
Graham, Walter Thompson	22.		Kinmundy
Cront Clarence Teld	CE		
Grant, Clarence 1000	S Cer SS CE		Elgin
Graham, Walter Thompson Grant, Clarence Todd Grant, Helen Winifrede Grant, Ruth Margaret	LA	66	Urbana
Grant, Ruth Margaret	HSLA		Urbana
Grantham Feta	22	151	
Grantham, Esta	SS	$15\frac{1}{2}$	Stockwell, Ind.
Grantham, George Manners	Agr	79	New Richmond, Ind.
Graves, Perry Henry	BLA	29	Rockford
Graves Roy Martin	CE	36	Evanston
Care C. F. 1: 35 C. (TT.)	CE	36	Lounsion
Graves, Perry Henry Graves, Roy Martin Gray. Cora Emeline, M.S. (Univ.			
Chicago) 1909	Mus		W. Palm Beach, Fla.
Gray, John Ernest Gray, Ruth	MnE		Ottawa
Con Dut	TICA		
Gray, Ruth	HSAgr		Des Moines, Ia.
Grayhack, John Edward, Jr.	CE		Joliet
Green Alta	LA	33	Urbana
Green, Alta Green, Bertha Agnes			
Green, Bertha Agnes	Mus (SS)	$80\frac{1}{2}$	Ivesdale
	C		
Green, Eulane	3	61	Oukwood
Green, Florence	IA	27	Oakwood Tonasket Wash
Green, Fullane Green, Mrs. Ollic	S LA	21	Tonasket, Wash.
Green, Florence Green, Mrs. Ollie	LA SS		Tonasket, Wash. Winchester
Green, Eulalie Green, Florence Green, Mrs. Ollie Green, Ralph	LA SS CE		Tonasket, Wash. Winchester
Green, Florence Green, Mrs. Ollie Green, Ralph Green, Roy Ezra	SS CE	36	Tonasket, Wash. Winchester Chicago
Green, Florence Green, Mrs. Ollie Green, Ralph Green, Roy Ezra Greenburg, Polond Frozett	SS CE Agr	36 391	Tonasket, Wash. Winchester Chicago Urbana
Green, Florence Green, Mrs. Ollie Green, Ralph Green, Roy Ezra Greenburg, Roland Everett	SS CE Agr ME	36 39½ 59	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind.
Green, Florence Green, Mrs. Ollie Green, Ralph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie	SS CE Agr ME Agr	36 39½ 59 75	Tonasket, Wash. Winchester Chicago Urbana
Green, Florence Green, Mrs. Ollie Green, Ralph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah	SS CE Agr ME Agr	36 39½ 59 75	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind.
Green, Raipn Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah	SS CE Agr ME Agr SS	36 39½ 59 75 90½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula
Green, Raph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Iosenh Nathaniel	SS CE Agr ME Agr SS Agr	36 39½ 59 75	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago
Green, Raph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Iosenh Nathaniel	SS CE Agr ME Agr SS Agr	36 39½ 59 75 90½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greeniill, Harold	SS CE Agr ME Agr SS Agr	36 39½ 59 75 90½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greeniill, Harold	SS CE Agr ME Agr SS Agr Agr ME	36 39½ 59 75 90½ 30	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Chicago
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greeniill, Harold	SS CE Agr ME Agr SS Agr Agr ME ME	36 39½ 59 75 90½ 30	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Talhula Chicago Chicago Chicago Pond Creek, Okla.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland	SS CE Agr ME Agr SS Agr Agr ME SS	36 39½ 59 75 90½ 30	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Chicago Pond Creek, Okla. Hersman
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenwell, James Roland Greenwell, James Roland	SS CE Agr ME Agr SS Agr Agr ME ME ME SS AE	36 39½ 59 75 90½ 30	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenwell, James Roland Greenwell, James Roland	SS CE Agr ME Agr SS Agr Agr ME ME ME SS AE	36 39½ 59 75 90½ 30	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenwell, James Roland Greenwell, James Roland	SS CE Agr ME Agr Agr Agr ME ME SS AE ME	36 39½ 59 75 90½ 30 37½ 60 112 11	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Hersman Peoria Kansas City, Mo.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenwell, James Roland Greenwell, James Roland	SS CE Agr ME Agr SS Agr Agr ME	36 39 ½ 59 75 90 ½ 30 37 ½ 60 112 12 96	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Chicago Hersman Peoria Kansas City, Mo. Chicago
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate	SS CE Agr ME Agr SS Agr Agr ME E MC ME	36 39½ 59 75 90½ 30 37½ 60 112 11	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Hersman Peoria Kansas City, Mo.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate	SS CE Agr ME Agr SS Agr Agr ME E MC ME	36 39 ½ 59 75 90 ½ 30 37 ½ 60 112 12 96	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate	SS CE Agr Agr SS Agr ME ME SS Agr ME BLA SS BLA	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate	SS CE Agr Agr Agr Agr Agr ME SS Agr ME ME ME BE ME BLA EE EE EE	36 39½ 59 75 90½ 30 37½ 60 112 112 113 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate	SS CE Agr Agr SS Agr Agr Agr ME SS ME BLA BLA BEL Agr Agr	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fullon, Ky. Savanna Peoria Chicago
Green, Raph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting	SS CE Agr Agr SS Agr Agr ME SS AGR ME ME ME BLA EE (SS) BLA EE Agr	36 39½ 59 75 90½ 30 37½ 60 112 112 113 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fullon, Ky. Savanna Peoria Chicago
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr SS Agr Agr ME SS AGR ME ME ME BLA EE (SS) BLA EE Agr	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fullon, Ky. Savanna Peoria Peoria Avenana Peoria Antago Amboy
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr SS Agr Agr ME SS ME SS ABB ME SS AE BLA EE ES AGR AGR BLA EE EM EA EE EM EA EE EM EE EM ES EM EE EM ES EM EM ES EM EM ES EM	36 39½ 59 75 90½ 30 37½ 60 112 112 113 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr SS Agr Agr ME SS ME SS ABB ME SS AE BLA EE ES AGR AGR BLA EE EM EA EE EM EA EE EM EE EM ES EM EE EM ES EM EM ES EM EM ES EM	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden Quincy
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr Agr SS Agr ME ME SS AE ME BLA EE (SS) BLA EE Agr AGr SS AE AGR	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr Agr SS Agr ME ME SS AE ME BLA EE (SS) BLA EE Agr AGr SS AE AGR	36 39½ 59 75 90½ 30 37½ 60 112 96 67 148 32½ 73½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden Quincy Hall, N. Y.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr SS Agr Agr ME SS AE ME SS AE BLA EE EC (SS) BLA GE EC (SS) Agr SS AG SS AG	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67 148 32½ 73½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Talhula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden Quincy Hall, N. Y. Connersville, Ind.
Green, Raiph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting Grieshaum Erwin	SS CE Agr Agr Agr SS Agr ME SS AGr ME SS AE BLA EE Agr Agr Agr EE Agr Agr Agr Agr	36 39½ 59 59 75 90½ 30 37½ 60 112 1½ 96 67 148 32½ 73½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Tallula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden Quincy Hall, N. Y. Connersville, Ind. Evanston
Green, Raph Green, Roy Ezra Greenburg, Roland Everett Greene, Arthur Ritchie Greene, Birdie Wilmah Greene, Joseph Nathaniel Greengard, Louis Jacob Greenhill, Harold Greenman, Philip Ray Greenwell, James Roland Gregg, Richard Seaton Gregory, Joseph VanClief Gregory, Lewis Throckmorton Gregory, Porter Tate Greison, Hans Peter Greves, George Lowthan Grewe, Charles Henry Gridley, William Whiting	SS CE Agr Agr SS Agr Agr ME SS AE ME SS AE BLA EE EC (SS) BLA GE EC (SS) Agr SS AG SS AG	36 39½ 59 75 90½ 30 37½ 60 112 1½ 96 67 148 32½ 73½	Tonasket, Wash. Winchester Chicago Urbana New Richmond, Ind. Lisle Talhula Chicago Chicago Chicago Pond Creek, Okla. Hersman Peoria Kansas City, Mo. Chicago Fulton, Ky. Savanna Peoria Chicago Amboy New Baden Quincy Hall, N. Y. Connersville, Ind.

C 'Mal Classes Details	45	,,	01
Griffith, Clarence Patrick	AE	66	Champaign
Griffith, Dickerson Francis	Agr		Chicago
Griffith, Dickerson Francis Griffith, Lowell Albert Griffith, Mildred Elizabeth	Age ch		Champaign
Caimen, Mildard Flineback	Agr sp LA	,,	
Grimth, Mildred Elizabeth	LA	66	Ashton
Griftner, James Howard	MnE (SS)	73	Champaign
Grigg, Dan Ralph, Jr.	7	25	
Origg, Dan Raiph, Jr.	L LA	23	Greenville
Grignon, Gaston Wilfred Grigsby, Hugh Grissom, Ruth Leona			Menominee, Mich.
Grigshy, Hugh	Agr		Medina, Pax., Mex.
Criscom Puth Loons	HSAgr	39	
Orissoni, Ruth Leona		39	Armington
Griswold, George Durfee Grizzell, Roy Ames Gross, Alfred W	ME	35	Chicago
Grizzell, Roy Ames	S	91/2	Murphysboro
Caran Alfand 337			T. 127
Gross, Alfred W	BLA	34	Ft. Wayne, Ind.
Grossman, Andrew Eugene	L	11	Chicago
Grossman, Andrew Eugene Grossman, Donald Ashway Grossman, Ralph Emery	LA		
Grossman, Donaid Ashway	LA		Champaign
Grossman, Ralph Emery	AE	31	Champaign
Gratts, Walter Franklin	2.2	2	Raymond
Craut Too Commenter	TA	105	
Grout, Joe Carpenter	LA		Winchester
Gratts, Walter Franklin Grout, Joe Carpenter Grove, Pearl Forest	LA S (SS) SS	100	Potomac
Groves, Mabel	66	465	Sidney
C . D. 1' - T1 A D 1011	1100		
Groves, Pauline Tradue, A.B., 1911	HSS	130	Champaign
Grubb, Cyril Leona	LA		Quincy
Groves, Pauline Trabue, A.B., 1911 Grubb, Cyril Leona Grubb, Sarah Maud	HSLA		
Grund, Sarah Maud			Quincy
Grunewald, Augustus Henry, Jr.	Agr	38 <del>1</del>	Chicago
Guenther, Carl Fred	Agr		Spring Valley Marseilles
	ME	16	Manager and
Gum, Harry Allen		16	Marseilles
Gumm, Leslie Monroe	EE		Marseilles
Gumz, Johann Herman Gunkel, Woodward William Gunnell, Palmer Mackenzie Gurley, Leon Raymond	AE (SS)	37	Aurora
C 1 -1 337 1 - 1 337'11'	112 (00)	37	
Gunkel, woodward william	LA		Sheffield
Gunnell, Palmer Mackenzie	L ME		Wichita, Kans.
Gurley Lean Paymond	ME		
Guiley, Leon Raymond	DIA		Chicago
(viistatson (veorge Philip	BLA		Sycamore
Gwinn, Avis	HSLA	76	Urbana
Cwinn Edith	HSLA (SS)	101	Urbana
Owinin, Edith	HOLA (SS)	707	
Gwinn, Avis Gwinn, Edith Haag, Curtis Eugene Haag, Vernon William Haan, George William	ME		Plymouth, Ind.
Haag Vernon William	Ch	31	Mazon
II C William	Md	01	
maan, George William			Aurora
Habbe, Richard Hartloff	LA	65	Indianapolis, Ind.
Hacker Amanda Dimple	LA		Cairo
TT- 1 1- Clarter Cilbert			
nadden, Chester Gilbert	Agr		Chicago
Hadden, Stanley Bear	ME (SS)	761	Penfield
Hadley Floyd Britton	Ane	65	Cambridge
TT A DIRECT	Agr BLA	03	
Hadden, Chester Gilbert Hadden, Stanley Bear Hadley, Floyd Britton Hagan, Tom Angus	DLA		Champaign
Haggott, William Stiles	EE	37	Keokuk, Ia.
Hague, Edith Elizabeth, A.B. (Univ.			,
	7 1.		77' - 6 1 011
Kansas) 1910	Lb		Kingfisher, Okla.
Hahn, Fred Charles	ChE		Springfield
Hahn, Hugo Joseph Haile, Warren mamilton		114	Sterling
TI-il- Wasser amiles			
Halle, Warren Hamilton	DIA		The same of a second
Haines, Ressie Indith	DIA		The same of a second
	DIA		The same of a second
Haines Mahel Magdalene	DIA		The same of a second
Haines, Bessie Judith Haines, Mabel Magdalene	BLA Mus sp (SS) LA	3½ 98¾	Evanston Urbana Urbana
Haines, Mabel Magdalene Hakanson, Arthur Ferdinand	BLA Mus sp (SS) LA ChE	3½ 98⅓ 41	The same of a second
Hakanson, Arthur Ferdinand	BLA Mus sp (SS) LA ChE	3½ 98⅓ 41	Evanston Urbana Urbana Chicago
Hakanson, Arthur Ferdinand Halas, Walter Henry	BLA Mus sp (SS) LA ChE AE	3½ 98¾	Evanston Urbana Urbana Chicago Chicago
Hakanson, Arthur Ferdinand Halas, Walter Henry	BLA Mus sp (SS) LA ChE AE BLA	3½ 98⅓ 41 42	Evanston Urbana Urbana Chicago Chicago Rockfort, Ind.
Hakanson, Arthur Ferdinand Halas, Walter Henry	BLA Mus sp (SS) LA ChE AE BLA LA (SS)	3½ 98⅓ 41	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry	BLA Mus sp (SS) LA ChE AE BLA LA (SS)	3½ 98⅓ 41 42	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE	3½ 98⅓ 41 42 96½	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A	3½ 98¾ 41 42 96½ 28	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE	3½ 98⅓ 41 42 96½	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A SS	3½ 98¾ 41 42 96½ 28	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A SS Agr	3½ 98⅓ 41 42 96½ 28 98	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A SS Agr Agr sp	3½ 98⅓ 41 42 96½ 28 98	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale Leonard Oliver	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A SS Agr Agr sp	3½ 98⅓ 41 42 96½ 28 98	Evansion Urbana Urbana Chicago Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville	BLA Mus sp (SS) LA ChE AB BLA LA (SS) AB SS Agr Agr sp EE	3½ 98⅓ 41 42 96½ 28 98	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Sireator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A SS Agr Agr sp	3½ 98⅓ 41 42 96½ 28 98	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AB AS Agr Agr sp EE Agr	3½ 98⅓ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo. Kewanee Peoria
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne Hall, Royal Glenn, A. B. (Park Coll.) 1912	BLA Mus sp (SS) LA ChE AB BLA LA (SS) AB SS Agr Agr sp EE	3½ 98¾ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Sireator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne Hall, Royal Glenn, A. B. (Park Coll.) 1912	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE A Agr Agr Agr SS Agr Agr SS SS	3½ 98¾ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo. Kewanee Peoria Goodman, Mo.
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne Hall, Royal Glenn, A. B. (Park Coll.) 1912	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE AG SS Agr Agr sp EE Agr SS Agr	3½ 98⅓ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo. Kewanee Peoria Goodman, Mo. Niantic
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haldeman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne Hall, Royal Glenn, A. B. (Park Coll.) 1912 Hall, Russell Pritchett Hall, Thomas Dennison	BLA Mus sp (SS) LA LA ChE BLA LA (SS) AB AS Agr Agr Agr sp EE Agr SS Agr Agr Agr sp	3½ 98¾ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Sireator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo. Kewanee Peoria Goodman, Mo. Niantic Lodybrand, So. Africa
Hakanson, Arthur Ferdinand Halas, Walter Henry Halbruge, Charles Morgan Haideman, Paul Johnson Haldeman, Ralph Erwin Hale, Leonard Oliver Hale, Roy Joseph Hales, George Wilfrid Hall, Harriett Hall, Lawrence Melville Hall, Lisle Gwynne Hall, Royal Glenn, A. B. (Park Coll.) 1912	BLA Mus sp (SS) LA ChE AE BLA LA (SS) AE AG SS Agr Agr sp EE Agr SS Agr	3½ 98¾ 41 42 96½ 28 98 13 108 67	Evansion Urbana Urbana Chicago Rockfort, Ind. St. Louis, Mo. Streator Grinnell, Ia. Taylorville Hinsdale St. Louis, Mo. Kewanee Peoria Goodman, Mo. Niantic

Halliday, Ruth	LA	57 <del>1</del>	Clio, Mich.
Halliwell, Pauline Halperin, Victor Hugo Halterman, Henry James Hamblin, Eugene Earl	LA	31	Chicago
Halperin, Victor Hugo	LA	5	Chicago
Halterman Henry James	ME	•	Anna
Hamblin Eugene Farl	S		Decatur
Hamill Eugene Carl	AE		Bloomington
Hamill, Eugene Carl	SS	5	
Hamilton, Rubey James Hammer, Glenn Orville	22		Kewanee
Hammer, Glenn Orville	EE	36	Morrison
Hammitt, Andrew Baker Hampton, Ernest Byron	AE	37	Des Moines, Ia.
Hampton, Ernest Byron	S		Benton
Hana, Leo Gregory	L	20	Champaign
Handke, Paul Albert	CerE	1071	Evanston
Handschin, Walter Frederick	Agr	201	Urbana
Hanes, Ernest Floyd	LA	60	Mt. Morris
Hanes, Ernest Floyd Hanes, Helen Leigh	S	65	Springfield
Hanes, Murray Samuel	AE	116	Springfield
Hanford Charles Harry	EE	110	Geneseo
Hanford, Charles Harry Hankins, Orville Gerber Hanley, Cope Judson	Agr	901	Champaign
Hankins, Orvine Gerber		702	
Hanley, Cope Judson	LA	001	Rensselaer, Ind.
Hannah, Harry Ingalls Hansen, Mabel Laurine Hansen, Merritt Rasmus	L (SS) HSAgr	981	Urbana
Hansen, Mabel Laurine	HSAgr	64	Jackson, Minn.
Hansen, Merritt Rasmus	CE	111	Chicago
Hansen, Otto William	AE	25	Chicago
Hansen, Roy	Agr	79	Rock Island
Hansen Stanley	ME	6	Chicago
Hansen Wilhur Martin	Agr sp		Chicago
Hansen, Otto William Hansen, Roy Hansen, Stanley Hansen, Wilbur Martin Hanson, Leslie Carl Hanson, Roy Walfred	LA		Morris
Tlanson, Dow Wolfred	AE	71	
Hanson, Roy Walled	ME	75	Oakland, Nebr. Winchester, Ind.
Harbour, Albert Stanley Hardin, William Atwater		13	
Hardin, William Atwater	Agr sp	105	Keithsburg
Harding, Albert Austin	SS	105	Champaign
Hardinger, Paul Milton	Md		Gays
Hana Fave Charles	LA (SS)	101	Gilman
Harman, Harris Jacob Harner, George Madison Harner, Arthur Theodore Claus	CE	75	Peoria
Harner, George Madison	Agr (SS)	1027	Urbana
Harner, Arthur Theodore Claus	BLA		Dolton
	A	118	Julton, Mo.
Harner Edward Clarke	Â	86	Enderlin, N. D.
Harner Tulia Alberta	LA	111	Urbana
Harper, Edward Clarke Harper, Julia Alberta Harpole, Tillman Hardy Harris, Clyde Dunbar Harris, Elodia Phern	LA	***	St. Louis, Mo.
Transia Clada Dumban	SS	16 <del>1</del>	Dongola
Harris, Clyde Dunbar	HSS	103	Marion
Harris, Elodia Phern			
Harris, Hannah Hahn Harris, Hannah Jewell Harris, Herbert Henry Harris, Leo Gabriel Harris, Lois Myrtle	LA	40	Champaign
Harris, Hannah Jewell	LA	48	Elgin
Harris, Herbert Henry	Agr	48	Cairo
Harris, Leo Gabriel	BLA		Wilton, Jct., Ia.
Harris, Lois Myrtle	S	44	Sheldon
	SS	4	E. St. Louis
Harris, Margaret Ray Harris, Roscoe Conkling	LA.	66	Champaign
Harris, Roscoe Conkling	ME	110	Champaign
Harris, William	SS	993	Altamont
Harris, William Harris, William Earle	Agr sp		Galva
Harrison, Ruth	LA		Morris
Hamanan Manu Agatha	SS	131	Burlington, Ia.
Harrover. Mary Agatha Harsch, Eugene Milton Harsh, Harry Jackson Harshbarger, Clara Belle	Agr	27	Peoria Pe
Harsen, Eugene Million	BLA	21	Sullivan
Harsh, Harry Jackson		1021	
Harshbarger, Clara Belle	LA	1021	Arcola
Harshbarger, James Francis	SS	130	Arcola
Harshbarger, James Francis Hart, Archie Harrison	Agr		Grand Chain
Hart, Hazel Charlotte. A.B., 1912 Hart, Herbert Earl Hart, Myron Bishop	SS	_	Champaign
Hart, Herbert Earl	BLA	31	Westfield, Mass.
Hart, Myron Bishop	Agr sp	31	Kenilworth
Hart, Paul Mathew	EE	74	Clinton
Hart, Paul Mathew Hart, William Ward	LA		Benton
Hartbank, Frederick William	BLA	24	Tolono
Harter, Earl Clark	LA	211	Wenona
Harter, Earl Clark Harting, Mildred Ellen	LA	41	Alexandria, Ind.
220.000			

Hartman, George Howard	EE		Atkinson
Hartman, Laura Ellen	LA	23	Wellington
Hartmann, Carl Alfred Hartsock, Nellie Mae Hartzelle, Ruth Rebecca	BLA	27	Alton
Hartsock, Nellie Mae	HSLA	101	Clinton
Hartzelle, Ruth Rebecca	LA	60	Carthage
Harvey, Beulah	SS	71	Mt. Carmel
Harvey, Beulah Harvey, Ralph Frame	Agr SS		Indianapolis, Ind.
Harwood, Frank D	SS	20	Flora
Harwood, Herrick Hopkins	I.	78	Carrollton
Harwood, Herrick Hopkins Hasgall, Myles Sigmund Hasgall, Rexford Theodore Haskell Frank William	L S		St. Louis, Mo.
Hasgall, Rexford Theodore	ME	5	St. Louis, Mo.
	EE	•	Sterling
Haskell, James Porter	Cer		Sterling
Haskell, James Porter Hasker, Edwin Laurie Haskett, Clarence Raymond Haslund, Roy Harrison	BLA	70	Kankakee
Haskett Clarence Raymond	Ch	, 0	Oklahoma City, Okla.
Hashind Roy Harrison	A	73	Minneapolis, Minn.
Hassig Carl	ËE	, ,	Atwood
Hatch Alice Ruth	HSS	89	Richmond
Hassig, Carl Hatch, Alice Ruth Hatch, Walter Samuel		108	
Hatowski, Elijah Robert	Agr EE		Avon
		74	Oak Park
Hattenhauer, Robert Clinton	ME	20	Peru
Hatton, Marcia Burrie Hauber, Carl Haugh, Benjamin Franklin	HSAgr	20	Champaign
Hauber, Carl	A Cer	29	Springfield, Mo.
Haugh, Benjamin Franklin	Cer		Anderson, Ind.
Havenhill, Lillian	SS		Jacksonville
Haver, Emily Louise	HSAgr		Pueblo, Colo.
Hawkins, Emin Witherspoon Hawkins, James Sumner Hawkins, Marjorie Deane Hawkins, Ralph Roscoe	Agr		Fairmount
Hawkins, James Sumner	Agr SS		Marion, Ind.
Hawkins, Marjorie Deane	SS	71/2	Chicago
Hawkins, Ralph Roscoe	ME	109	Palestine
Hawley, Alfred DeWitt	CE	56 <del>1</del>	Pittsford, N. Y.
Hay, Clair Edwards	Agr (SS) BLA sp	120	Ottawa
Hay, Eleanor Ridgely	BLA sp		Urbana
Hawley, Alfred DeWitt Hay, Clair Edwards Hay, Eleanor Ridgely Hay, Henry Collins	L (SS)	50	Urbana
Hayden, Edmund Matthew Hayes, Edward Bean Hayes, William Bertram	Agr sp		Elwood
Hayes, Edward Bean	SS BLA	4	Urbana
Hayes, William Bertram	BLA	24	Champaign
Hayhurst, Paul	Agr	15	Waco, Texas
Hays, Lillian Mae	Mus sp		Urbana =
Hayward, Jessie L	SS		Flora
Hazen, Franklin Millen	ChE		LaSalle
Headley, Francis Leo Healy, Emmett Joseph Healy, Fred Albert	Agr		Paris
Healy, Emmett Joseph	CE	120	Chicago
Healy, Fred Albert	Agr	36	Aurora
Healy, Wellington Carleton	L	35	Rochelle
Hearn, Alma	Mus sp	4	Grayville
Hearn, Alma Heath, Edith Mary	LA	33	Amboy
Heath, Nathaniel Pinckard Heath, Trevor Morse Hecht, August George	EE (SS)	1091	Chicago
Heath Trever Morse	Agr	25	Oberlin, Ohio
Hecht August George	Agr ch (SS	) 531	Wellston, Mo.
Heck, Arthur Floyd	Agr sp (SS Agr (SS)	1101	New Carlisle, Ohio
Hecketsweiler, Roy Thomas	LA	36	Rockefeller
Hedgeock John Franklin	Agr	44	Plymouth
Hedgcock, John Franklin Hedgcock, John Harrison	Agr	77	Plymouth
Hadrick George Samuel			Urbana
Hedrick, George Samuel Heflin, James Edgar	Agr SS	9	Versailles
Wagnes Wes Lotte Alice	Museh	,	
Hegnauer, Mrs. Lotta Alice Hegnauer, Robert Lucius	Mus sp	112	Farmersburg, Ind.
Heidlams Emil Nicheles	Agr CE	105	Appleton City, Mo.
Heidkamp, Emil Nicholas			Chicago
Heimbrodt, Carl Edward Hein, Mary Rachel	A	67	Wilmette
	Agr sp (SS ChE	1 162	Champaign
Heinzelmann, Alfred Martin	DIA	34	Aurora
Heiple, Donald Graff	BLA	70	Washington
Helander, Linn	Md	70	Chicago
Helirich, Otis Loyd	CerE	76	Carthage
Helander, Linn Helfrich, Otis Loyd Helfrick, Ray Eichorn Helgeland, Lillie Isabel	A	36	Elkhart, Ind.
Heigeland, Lillie Isabel	LA	4	Elliott

7/	LA		Metropolis
Helm, Herbert Clarence	Agr	58 .	Iacksonville
Helm, Herbert Charles Hemphill, Chester Abram	ME		New York City
Hemphill, Chester Administration of the Hemstreet, Bonfield Vance Henderson, Alexander Henderson, Frank Spoor Henderson, Fred Marion, Lora Atkins, A.B., 1907, Lora Atkins, A.B., 1907,	EE	50	Chicago
Hemsercer, Alexander	EE	2.2	Sterling, Colo.
Henderson, Frank Spoor		70½	Millers Ferry, Ala.
Henderson, Fred	Agr	102	
Henderson, Fred Henion, Lora Atkins, A.B., 1907, A.M., 1911			Urbana
Fielilon, 130.	SS	71	Colfax
A.M., 1911 Henline, Henry Harrison Henry, Mary Anne Henry, Percy Chandler Henson, Ray David Henburn Thomas McDonald	EE	74	Paloma
Henline, Henry Harrison	LA	27	Decatur
Henry, Mary Anne	EE (SS)	90	Johnston City
Henry, Percy Chandler	LA		Commission Cons
Henson, Ray David	CE	98	Genoa
Henson, Ray David Hepburn, Thomas McDonald Herbert, James John Michael Herbolsheimer, Albert John	T ch		Chicago
Herhert, James John Michael	Agr (SS)	109	Urbana
Herbolsheimer, Albert John	S	65	Winnetka
Herbolsheimer, Albert John Herdman, Carrie Belle Herdman, Margaret May, A.B., 1910	Lb	32	Winnetka
Herdman, Margaret May, A.B., 1910			Pekin
	BLA	1141	Sterling
Hermann, Edgar Paul Hermann, Ralph Leroy	S (SS)	37	Woodbine
Hermann, Bugar Leroy	EE	31	Milford
Hermann, Kaiph Leady Alfred	BLA	47	Farmer City
Hermann, Raiph Hermansen, Frank Alfred	L	47	Farmer City
Herrick, George Wilt	Agr	641	
Herrick, George Wirt Herrick, Wayne Dayre Hersman, Ernest Glen	A	75	Hersman
Hersman, Ernest Glen	Md	70€	Momence
Hess, Gailord Ray	ChE	21	Glasford
Hess, Gailord Ray Hess, Samuel Earl Tess, Samuel Earl	SS	121	Aurora
Hess, Samuel Earl Hesselbaum, Caroline Elizabeth		27	Beason
Hesselbaum, Caroline Elizabeth Hetzler, Vaughn Glenn Heuse, Edward Otto, B.S. (Hanove: Coll.) 1900, M.S., 1907 Heyin Melyin Edwin	Agr sp		
Heizier, Vauged Otto, B.S. (Hanove	r		Champaign
Heuse, Edward MS 1907	SS _	12	Loda
Coll.) 1900, W.S., 1900	MnE	12	Polo
Hewins, Melvin Edwin	Agr sp_	e 21	Chicago
Hey, Charles Victor	Agr sp CE (SS)	731/2	Urbana
Heywood, Harold William	LA	29	Clian
Hewins, MeVill Lawin Hey, Charles Victor Heywood, Harold William Hickman, Burr James Uisle Rossoe Herman	BLA	102	Colfax Wis
	Ane		Waterloo, Wis.
Highel Leonard D	LA (SS)		Urbana
	AE	77	Joliet
Higgins, Irma May Higgins, Max Brown Hilbert, John William	ĈE		Chicago
Highest John William	CE		Rockford
Hilbert, John Arthur John	L LA		Hunt
Hillert, John Arthur John Hiles, Marie Alice Hill, Charles Francis Hill, Charles Nelson Hill, Chauncey Steavens Hill, Fred James Hill, Fanny Wilder, A.B., 1910 Hill, John Cantwell Hill, John Cantwell	LA	69	Toledo
Hiles, Walle Tinec	S. BLA	106	
Hill, Charles Plancis			
Hill, Charles Nelson	Agr	66	Harvard
Hill, Chauncey Steavens	Cer	30	Champaign
Hill, Fred James	Lb		Coyoacan, Mex.
Hill, Fanny Wilder, A.B., 1910	Agr	10	Coyoucun, men
Hill, John Cantwell	LA		Oakwood
Hill. Tesse Levin	ĈE	73	Chicago .
Hill, John Cantwell Hill, Jesse Levin Hill, John William Hill, Lucy Belle Hill, Margaret Dorothy Hill, Roger Edward Hill, Stanley	Mus sp	7	Champaign
Hill Lucy Belle	HSAgr	39	Chicago
TI:11 Margaret Dorothy			Woodstock
Till Poger ridward	ME	95	Mattoon
TIIII, Roger Danier	S LA SS CE	70	
Hill, Stanley Hill, Wilma Marie	LA	19	1 Peoria
Hill, Willia Matte	22.	6.	
Hilling, David Curtis	CE		
Hillman, Arthur Burgess	MSE	30	Boody
	LA		
Hills, Louis John Himstedt, Ralph Ebner Hinman, Robert Bruce	Agr		61 Dundee
Hinman, Robert Bruce	BLA	9	Davenport, Ia.
Hinrichsen, Fred Albert	SS		3 Oskaloosa, Ia.
Hinrichsen, Fred Albert Hinshaw, Harvey Rebecca Hinshaw, Hazel Elizabeth	HSLA	7	6 Ridgefarm
Hinshaw, Hazel Flizabeth	L		Harrisburg
Hinshaw, Joseph Howard	4		Chicago
Hinshaw, Joseph Howard Hirschfeld, Leo Saul	1		6 Davenport, la.
Titechi Jackson Luward	A A A	,	Davenport, Ia. St. Cloud, Minn.
Hirt, Edward George, Jr.	TICA		11 Quincy
Hirth, Laura Edna	HSAgi		~
riftii, Latita Zania			

hai			
Hirtzel, Clara Lillie	SS	621	Effingham
Hitchcock, Earl Wilkie Hitt, Agnes Virginia	Agr	34	Hallowell, Kans.
Hitt Acros Virginia	HSLA	01	
Titt, Agiles Virginia			Herrick
Hitt, Katherine	LA	41	Chicago
Hitt, Mabel	HSLA		Urbana
Hjort, Axel Magnus Ho, Chung Ming Hocking, Clarence Daniel Hodgins, William Brooks	ChE	58	Chicago
He Chara Mina			
no, Chung Ming	LA	63	Canton, China
Hocking, Clarence Daniel	Ag sp		Bone Gap
Hodgins, William Brooks	ME	771	Little Rock, Ark.
Hoehn Friemont John August	Cer	2	Carlinville
Hoehn, Friemont John August Hofacker, Olga Vera, A.B., 1911	00		
Holacker, Olga Vera, A.B., 1911	SS SS		Peoria
Hoff, John LeRoy	SS	30 <del>l</del>	Ottawa
Hoffert, Anna Catheryn	LA	33	Pekin
Hoffman Engels Tagash			
Homman, Frank Joseph	A	$103\frac{2}{3}$	Sharpsville, Ind.
Hoffman, Frank Joseph Hoffman, John Neal Hoffman, Kay Henry	SS	59	Pesotum
Hoffman, Kay Henry	Agr sp		Copenhagen, Denmark
Hoffman, Lynden Evan	S		
	2		Harvey
Hoffman, Roy Albert	EE		Aurora
Hoffman, Reyburn Paul	A	67	St. Louis, Mo.
Hoffman, Robert William	Agr	1031	Chicago
	CC		
Hofstetter, Robert	SS	5	Champaign
Hogan, Harold Eugene	ChE		Lanark
Hohman, Elmo Paul	LA		Nashville
Hohmann, Howard Christopher	EE	116	
			Blue Island
Hoit, Maurice Elon	Agr	31	Geneseo
Hoke, Josiah Campbell	Agr (SS)	1103	Sullivan
Holbrook, Howard Crounse	Agr	26	Oak Park
Holoh Author Engest			
Holch, Arthur Everett	SS	137	Gilman
Holinger, Arnold Carl	A		Chicago
Hollandsworth, Blanche Louise	LA	82	Canton
Hollard, Henry Walter	Agr sp	13	Highland
Holliston Vohla Danken		13	
Homster, Noble Farker	Agr	55	Champaign
Hollister, Noble Parker Holloway, Doris Jean	HSLA		Detroit, Mich.
Holmburger, Max, Ir.	ME	37	Chicago
Holmes, Charles Vernon	ME	•	Champaign
Hola Anthur Darley		12	
Holt, Arthur Parker Holt, Emery Ford	Agr	62	Shawneetown
Holt, Emery Ford	EE	100	Shawneetown
Holton, Caryl Ames	CE	107	Sidell
Holton, Frankie Leo	LA		Sidell
		711	
Homann, Ferdinand	Agr	93	Mattoon
Honer, William Arthur	A	36	Jackson, Mich.
Honnold, James Ray	Agr		Lima, Ohio
	EE	26	
Hood, Clifford Firoued	EE	36	Cameron
Hoog, Ida	SS		Litchfield
Hoover, Isabel	LA	58	Bushnell
Hopkins, Elliott Budd	ME	82	Racine, Wis.
Hopking Gold Samuel			
Hopkins, Gold Samuel	BLA (SS)		Champaign
Hopps, Robert Smith	CE	39 <del>1</del>	Spokane, Wash.
Hornal, William	Agr sp (SS		Ürbana
Horning Roy Arthur	Cer	70	Paris
Hambahl Cinchied Imin a 317'11'-		10	
Hornkohl, Siegfried Irving William Hornung, Martin Robert Horrell, Charles Rush	AE		St. Joseph, Mo.
Hornung, Martin Robert	Cer	105	Chicago
Horrell, Charles Rush	EE	108	Macomb
Horton, Claude Edward		100	
Transist Taxis Tali	Agr	0.77	Dixon
Horwich, Louis Julius	A	87	Chicago
Horwich, Louis Julius Hoskins, Mary Mildred	LA (SS)	93	Norris City
Hoskins, William, Jr.	BLA	64	LaGrange
Hockinson Bruce Ouinn	55		
Hoskinson, Bruce Quinn	33	30₺	West York
Hoskinson, Ottes, A.B. (Christian			
Coll.) 1900	SS		Meron, Ind.
Hostetler, Joseph Columbus	LA	35	Decatur
Hostetler Oliver Clinton	SS		
Trostetier, Oliver Clinton		8	Charleston
Hostetler, Joseph Columbus Hostetler, Oliver Clinton Hough, Charles Francis	Agr	34	Champaign
Hough, Helen Elizabeth	LA	96	Champaign
Hough, Helen Elizabeth Hough, Waldron Henry Hoult, Geneva Frances	FF	3	Oak Park
Hoult Canava Frances	EE SS	79	
House, Geneva Plances	33	14	Chrisman

TT T T	7 4		P C':
Houser, Irma L	LA		Farmer City
Housman, John Smith	MnE	75	Canton
Housman, John Smith Houston, Margaret	HSAgr		Chicago
Howat, Walter Leonard Howe, Charles Ralph Howe, Edward Gardinar, Jr. Howe, Harold James	Cer	67	Canton
Hama Charles Palah	Agr	0,	Champaign
Howe, Charles Raiph			
Howe, Edward Gardinar, Jr.	Agr	65	Chicago
Howe, Harold James	L	7	Galesburg
Howe, Helen	LA	16	Indianapolis, Ind.
Howe William Thomas	Agr	201	Tuscola
Howe, William Thomas Howell, Grace Laura Howes, Herbert Edward	Ayr CC		
Howell, Grace Laura	SS	6	Lewistown
Howes, Herbert Edward	Agr	74	Chicago
Howk, Charles Dean	LA	25	Momence
However Tames Chandler	Agr	74	
Howser, James Chandler Hribal, Edward A Hsu, Tsung Han			St. Anne
Hribal, Edward A	AE	$110\frac{1}{2}$	Chicago
Hsu, Tsung Han	S (SS)	68 <del>1</del>	Shantung, China
Hubbard, Laura Mary, A.B. (West-			
ern Coll.) 1896	T h	40	Lockwood, O.
77 11 0011.) 1090	Lb CE		
Hubbard, Laurence Reid Hubbard, Lucy Eleanor Hubbard, Mrs. Margaret	CE	15	Rock Falls
Hubbard, Lucy Eleanor	HSS (SS)	95	Urbana
Hubbard Mrs Margaret	SS	31/2	Carrollton
Thebland Months Voobs A D 1004	Mus	0 2	Urbana
Titubalu, martia ixociii, 21.D., 1904		0.4	
Hubbard, William Francis	ME	24	Rockford
Huddleston, Russell McDonald	Agr		Farmer City
Huddleston, Samuel David, A.B.			
(Chamble Call ) 1010	SS		Cillaghia
(Shurtley Coll.) 1910			Gillespie
Hudelson, Clyde Whittaker	Agr(SS)	92	Gooding, Idaho
Huddleston, Samuel David, A.B. (Shurtleff Coll.) 1910 Hudelson, Clyde Whittaker Hudson, Edward George Hudson, Mary Gladys	Agr		Newton, Kans.
Hudson Mary Gladys	LA	31	Sullivan
II. a Manuscrite I vdie		31	
nun, marguerne Lydia	Mus sp		Urbana
Hufford, Charles Thurman	Agr sp	28	Emma
Hughes, Cecil A Hughes, John Harvey Hughes, William Virgil	Agr	69	Gays
Hugher John Harvey	Agr	1021	Gessie, Ind.
The sheet William Vincil		1022	Dalastina
riughes, william virgii	Agr sp		Palestine
Huisken, Arthur Herman	ChE	36	Chicago
Hull, Daniel Ray Hull, Harter Barnes	Agr	$100\frac{1}{2}$	Orange, Calif.
Hull Harter Barnes	BLA		Cincinnati, O.
Their Lacense	LA		
Hull, Luenna			Huron, O.
Hulteen, Henry Waldorf	AE		Evanston
Humphrey, Kenneth Blaine	EE	14	Waterloo, Wis.
Humpidge Herbert Leslie	Agr		Chicago
Humphrey, Kenneth Blaine Humpidge, Herbert Leslie Hungate, Harold Grandison	EE	59	LaHarpe
nungate, narold Grandison	CE		
Hungerford, Charles Everett	CE	28	Loda
Hunt, Ada Eleanor	SS	133	Champaign
Hunt, Clara Hunt, Florence Jennie	Mus sp		Ridott
Hent Florence Tennie	HSS	25	Ridott
Trunt, Profence Jennie		1001	Peoria
Hunter, James Albert	LA		
Hunter, James Alexander		1002	77 16
Hunter Richard Dale	Agr	1002	Frankfort
		1002	Frankfort
Hunter Russell Rield			Frankfort Tiskilwa
Hunter, James Alexander Hunter, Richard Dale Hunter, Russell Field	Agr S	117	Frankfort Tiskilwa Chillicothe
Hunter, Russell Field Huntington, Homer Irving	Agr S Agr	117	Frankfort Tiskilwa Chillicothe Chicago
Hunter, Russell Field Huntington, Homer Irving Huntington, Margaret Alice	Agr S Agr LA	117 30	Frankfort Tiskilwa Chillicothe
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta	Agr S Agr LA	117 30	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D.
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta	Agr S Agr LA	117 30 7½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y.
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta	Agr S Agr LA SS SS	117 30 7½ 125½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta	Agr S Agr LA SS SS ME	117 30 7½ 125½ 35	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfield
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta	Agr S Agr LA SS SS	117 30 7½ 125½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold	Agr S Agr LA SS SS ME Agr	117 30 7½ 125½ 35 24	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfield Roodhouse
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A	Agr S Agr LA SS SS ME Agr Agr	117 30 7½ 125½ 35	Frankfort Tiskilwa Chilicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfield Roodhouse Roodhouse
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth	Agr S Agr LA SS SS ME Agr Agr	117 30 7½ 125½ 35 24 30	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred	Agr S Agr LA SS SS ME Agr Agr	117 30 7½ 125½ 35 24 30 83	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfield Roodhouse Roodhouse Zion City Gibson City
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred	Agr S Agr LA SS SS ME Agr Agr	117 30 7½ 125½ 35 24 30	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie	Agr S Agr LA SS SS ME Agr Agr L (SS) Mus	117 30 7½ 125½ 35 24 30 83 29	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfield Roodhouse Roodhouse Zion City Gibson City Urbana
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick	Agr S Agr LA SS SS ME Agr Agr Agr Agr Sb L (SS) Mus CE (SS)	117 30 7½ 125½ 35 24 30 83 29 125½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfield Roodhouse Roodhouse Zion City Gibson City Urbana Urbana
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore	Agr Sgr LA SS SS ME Agr Agr Agr SS ME CS MUS CE (SS) Agr	117 30 7½ 125½ 35 24 30 83 29	Frankfort Tiskilva Chillicothe Chilcago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfield Roodhouse Zion City Gibson City Urbana Urbana Shabbona Grove
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee	Agr Sgr LA SS SS ME Agr Agr Agr SS ME CS MUS CE (SS) Agr	117 30 7½ 125½ 35 24 30 83 29 125½ 57½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Shabbona Grove Rcd Oak, Iowa
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee	Agr Sgr LA SS SS ME Agr Agr Agr SS ME CS MUS CE (SS) Agr	117 30 7½ 125½ 35 24 30 83 29 125½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Shabbona Grove Rcd Oak, Iowa
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee	Agr S Agr LA SS SS ME Agr Agr Agr SS MUS CE (SS) Agr LA SS Agr LA SS	117 30 7½ 125½ 35 24 30 83 29 125½ 57½	Frankfort Tiskilwa Chilicothe Chicago Aberdeen, S. D. Canandaigua, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Shabbona Grove Red Oak, Iowa Tokyo, Japan
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee Iida, Tadishi Imes, Oliver Stapp	Agr S Agr LA SS ME Agr Agr Agr SS ME L (SS) Mus CE (SS) Agr LA SEE	117 30 7½ 125½ 35 24 30 83 29 125½ 57½ 141	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfield Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Urbana Shabbona Grove Red Oak, Iowa Tokyo, Japan Macomb
Huntington, Homer Irving Huntington, Magaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee Iida, Tadishi Imes, Oliver Stapp Inagaki, Nobtaro	Agr S SS SS SS ME Agr Agr sp L (SS) Muss CE (SS) Agr LA SS EE BLA (SS)	117 30 7½ 125½ 35 24 30 83 29 125½ 57½ 141 78½	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfeld Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Shabbona Grove Red Oak, Iowa Tokyo, Japan Macomb Tokyo, Japan
Huntington, Homer Irving Huntington, Margaret Alice Huntoon, Alberta Huntoon, Geneva Husband, Robert Maurice Husted, Guy Harold Husted, Lee A Husted, Margaret Elizabeth Huston, Joseph Alfred Hutchins, Marjorie Huxmann, Richard Frederick Hyde, Henry Fillmore Iddings, Vera Glee Iida, Tadishi Imes, Oliver Stapp	Agr S Agr LA SS ME Agr Agr Agr SS ME L (SS) Mus CE (SS) Agr LA SEE	117 30 7½ 125½ 35 24 30 83 29 125½ 57½ 141	Frankfort Tiskilwa Chillicothe Chicago Aberdeen, S. D. Canandaigna, N. Y. Champaign Litchfield Roodhouse Roodhouse Zion City Gibson City Urbana Urbana Urbana Shabbona Grove Red Oak, Iowa Tokyo, Japan Macomb

Ingham, Alice	SS	98	Cicero
Ingold, Vivian Johnson Inman, Dean Maxwell Irvin, Stanley Pueffer Irwin, Scott Broadwell	AE	117	Appleton, Wis.
Irvin Stanley Pueffer	SS BLA		Neoga Griffith, Ind.
Irwin, Scott Broadwell			Pleasant Plains
Ivens, Aaron Ralph	Agr SS	761	Champaign
Jackman, Charles Harold Jackson, Ernest Theodore Jackson, Grace Janet Jackson, Harold Rufus	ME		Elgin
Jackson, Ernest Theodore	SS	71	Odin
Jackson, Grace Janet	LA CE		Pueblo, Colo.
Jackson, Harold Rutus	CE	44.0.2	Danville
Tackson, Madei	LA SS	$\frac{412-3}{13\frac{1}{2}}$	Danville Eureka
Jackson, Ruth Whittier Jacob, Eda Auguste	HSLA	$67\frac{1}{2}$	Constantinople,
Jacob, Lua Auguste	IIJLA	0/2	Turkey
Jacobsen, Walter Herman	BLA	64	Urbana
Jalandoni, Jose Ledesma	SS	1331	Jaro, Iloilo, P. I.
James, Edward Allen	EE	37	Amboy
Jalandoni, Jose Ledesma James, Edward Allen James, Linton Willis	Agr	33	Canton
James, Phebe Elizabeth James, Russell Louis Janson, John Moller	LA	56	Mansfield
James, Russell Louis	Agr	19 <del>1</del> 47	Crystal Lake
Janson, John Moller	Ch LA	41	E. Orange, N. J. Shelbyville
Jarnagin, Robert Jarvis, Rowling	EE	13	Hinsdale
Jarvis, William Bancroft	LA	30	Chicago
Jarvis, William Bancroft Jasper, Walter	Agr	34	Chicago
Tefferis, Sidney Ambrose	CE		E. St. Louis
Jefferson, John Benjamin Jenkins, Albert Leo Jenks, Royal Edward	ME	44	Chicago
Jenkins, Albert Leo	A		Danville
Jenks, Royal Edward	SS	5	Dana, Ind.
Jenne, Charles Henry	Agr sp		Sullivan
Jennings, Carson Gary Jennings, Walter Wilson	CE LA	60	Carlinville St Elma
Jensen, Milton Owen	BLA	30	St. Elmo Chicago
Teremiah. Otis	Agr sp	20	Willisville
Jervis, Florence May	Mus	24	Champaign
Jessen, Hubert Jewett, Fred Allen	Agr sp	25	Alto Pass
Jewett, Fred Allen	CerE		Burlington, Kan.
Jez, Leo Charles	Agr	56	Chicago
Johanning, Nora Bertha Johanson, Ralph Thure	HSAgr (SS	) 30	Champaign
Johanson, Kaiph I hure	BLA HSLA	58	St. Charles Clinton, Iowa
Johns Donald Charles	MnE	20	Danville
John, Dorette Thayer Johns, Donald Charles Johns, Wilford Espin	Agr	641	Rockford
Johnson, Alice Sarah, B.L.S., 1907	LA (SS)	1761	Champaign
Johnson, Elmer Walfred	CE SS		Batavia
Johnson, Alice Sarah, B.L.S., 1907 Johnson, Elmer Walfred Johnson, Mae Goldie	SS	7	Basil, O.
lohnson Harry Hillins	Agr	100	Gerlaw
Johnson, Harvey Judd	EE	108 46	Sycamore
Johnson, Harvey Judd Johnson, Harold Sucese Johnson, Louis Samuel Johnson, Mary Fern	A Agr (SS)	49	Chicago Champaign
Johnson Mary Fern	LA	17	Urbana
Johnson, Maurice Carl	ME		Omaha, Neb.
Johnson, Maurice Carl Johnson, Maynard Wayne Johnson, Nelle Irene	BLA	4	Cincinnati, O.
Johnson, Nelle Irene	LA	90	Carmi
Johnson, Kadford Murray	Agr		Crossville
Johnson, Ralph Martin	LA		Peoria
Johnson, Raymond Rodger	EE DI 1	63	Ironton, O.
Johnson, Raymond Rodger Johnson, Robert Carl Johnson, Robert Eugene	BLA EE	03	Pana Lawrenceburg, Ky.
Johnson, Robert Lugene Johnson, Robert Ulysses	A	100	Chicago
Johnson, Sydney Kent	BLA	2	Norwich, N. Y.
Johnston, Clarence William Henry	EE		Pittsfield
Johnston, Clarence William Henry Johnston, Dwight Irwin	BLA		Seymour
Johnston, Irving West	Agr	121	Champaign
Johnston, Ruby Aileen Johnston, Vern Irle	LA	20	Lamar, Colo.
Johnston, Vern Irle	Agr	30	Sidney

	4	0.5	7117 . 4 . 17 .
Johnston, Wilbur Russel	Agr	25	Illiopolis
Johnston, Wilbur Russel Johnstone, Andrew John Johnstone, George Rufus Jones, Alexander Henry	Agr	102	Bloomington
Johnstone, George Rufus	S	96	Galva
Jones, Alexander Henry	SS	8	Metropolis
Jones, Davrell Clinton Jones, David Robert Jones, Herbert Milton Jones, John Ryan Jones, Lloyd Theodore, A.B. (Lake	ME		Oblong
Tones, David Pohort	CE		Streator
Jones, David Robert	REE	551	
Jones, Herbert Milton		55 ½	Chicago
Jones, John Ryan	Agr	$23\frac{1}{2}$	Williamsville
Jones, Lloyd Theodore, A.B. (Lake			
	SS		Raymond
Jones, Milton Doerr	EE	97	Raymond
Tomas Orien Chaster	Md	16	Redmon
Jones, Orion Chester Jones, J Russell Jones, Paul Clifford		20	
Jones, J. Russell	BLA		Springfield
Jones, Paul Clifford	EE		Henry
longe Paul Brastiis	$\boldsymbol{A}$	54	Tulsa, Okla.
Jones, Robert Taylor, B.S., 1912 Jones, Rupert Forrest Jones, Walter Ortis Jones, Walter Wellman Jory, Herbert W	Mus	148	Vincennes, Ind.
Iones, Robert Forrest	EE	108	Champaign
Jones, Rupert Politest		100	
Jones, Walter Ortis	LA		Champaign
Jones, Walter Wellman	LA (SS)	4	Braceville
Iory, Herbert W	$\boldsymbol{A}$	75	Chicago
Joseph, Ada Kathryn	Mus	25	Jasper, Ind.
Tan Danald Cooper	ME		Jacksonville
Joy, Donald Cooper			
Joyner, Mildred Judson, Bryant Escar	LA		Harrisburg
Judson, Bryant Escar	ME	31	Evanston
Jue, Chow Quon	Agr	10	Canton, China
Tue Took Hing	BLA	20	Canton, China
Jue, Jook Hing June, Marjorie Marie	HSLA	31	Belvidere
June, Marjorie Marie	DIA	31	
Jungkunz, Louis Frederic	BLA		Freeport
Jutton, Emma Reed, B.L.S., 1899	LA	1203	Champaign
Kahlert, Thomas D	Agr	34 <del>1</del>	Carlyle
Kahlert, Thomas D Kaiser, Oscar Ambrose	Ch	42	Somonauk
Kaiser, Oscar Miniprose	S		Highland
Kamm, Kurus Maurice	2		
Kamm, Rufus Maurice Kamm, Wilbur Fred	S		Highland
Kan, Chen Chi	BLA (SS)	38	Shanghai, China Geneva, N. Y.
Kana Albert Tohn	CE		Geneva, N. Y.
Kana Edwin Lyla McVicker	Agr		Henry
Vana Dahant Clair	EE		Warren
Kane, Edwin Lyle McVicker Kane, Robert Clair Kane, Roy Alexander	LE	0.5	
Kane, Roy Alexander	A	85	Sanborn, Ia.
Karcher, Frank Joseph Karges, Henry Gilbert	Md	76	Herscher
Karges, Henry Gilbert	AE	77	Evansville, Ind.
Karkow, Waldemar	CE	1097	Chicago
Vara Francis Cada	Agr		Seymour
Karr, Ernest Cade			
Kasserman, Frederic Doty	Agr		Newton
Kasserman, Homer Frank	LA		Newton
Kastler, Randolph Cecil Kattner, Dorothea	Agr sp SS	61	Chicago
Kattner Dorothea	SS	61	Mt. Vernon
Katzenberg, Herman Stanley	AE	6	Chicago
Wasternoeig, Herman Stantey	A (SS)	18	Morrison, Ia.
Kaufman, George Bremner	7 (33)		
Kaufmann, Myrtle Louise	SS	$5\frac{1}{2}$	Freeport
Kaun, Robert Ferdinand Kaun, Walter Valentine	EE (SS)	115	Ottawa
Kaun, Walter Valentine	EE	1083	Ottawa
Kavanagh, Richard John	LA		Peoria
Variation David Francis	ĒĒ	11	Moline
Kavanaugh, Daniel Francis Kawamoto, Tane Jackson		202	Asaka, Japan
Kawamoto, Tane Jackson	EE	28	
Kay, Charles John	EE	108	Aurora
Kay, George Joseph	EE	108	Aurora
Kazar Jay Justin	ME	59	Aurora
Kay, Charles John Kay, George Joseph Kazar, Jay Justin Keefer, Ruth Farwell	LA	82	Amboy
Tarbara Arch Floor	CE	75	
Keehner, Arch Floyd	CE	75	Jerseyville
Keen, Frances Ford	LA	33	Pueblo, Colo.
Keese, Albert William	Cer	36	Litchfield
Keese, Frances Alberta	SS	41	Litchfield
Keese, Frances Alberta Keese, William John	SS S	24	Ishheming, Mich.
Value Tomas Malasha	ME	38	Ishpeming, Mich. Kenosha, Wis.
Kenior, James Malcolm		30	Me Olina
Keiser, Katie	SS	3	Mt. Olive
Kehlor, James Malcolm Keiser, Katie Keith, Laurence Prescott Kell, Sherman Little	AE	1573	Whittier, Calif.
Kell. Sherman Little	SS	45	Kell

Keller, Arthur Raymond	ME		Mt. Carmel
Keller, Florence	LA	74	Chicago
Waller Daymand Enomistic		• •	Delaware, O.
Keller, Raymond Franklin Kelley, Alfred Pruden Kelley, Francis Hugh Kelley, Henry Phillips	Agr sp		
Kelley, Alfred Pruden	LA		Champaign
Kelley, Francis Hugh	Agr	34	Urbana
Kelley Henry Phillips	Agr		Elgin
To 11 To 12	CC	141	Danville
Kelley, Lena Kelley, Mae Elizabeth Kelley, Ralph Leverett Kelligar, Zeta Eloise	SS	16½	
Kelley, Mae Elizabeth	LA (SS)	931	Loda
Kelley, Ralph Leverett	$A_{-}$ (SS)	99½	Elgin
Kelligar Zeta Floise	LA		Pana
Kelligar, Zeta Elvise	TA	E 1	
Kellogg, Amelia Lucinda	LA	51	Aurora
Kellogg, Chester Arthur	EE	37	Chicago
Kelly, Fred Hanford Kelly, Howard Walton, Jr. Kelly, Ray Andrew	LA		Mattoon
Walter Hamord Walton In	Agr	201	Normal
Kelly, Howard Walton, Jr.		30½	
Kelly, Ray Andrew	Agr		Pittsfield
Kemp, Orval Alton	Agr		Waynetown, Ind.
Kandall Clinton Dwight	BLA	24	Oak Park
Kendan, Chinton Dwight			
Kendall, Clinton Dwight Kendall, James Henry	CE	61	Oak Park
Kennedy, Hannah Ellen Kennedy, Luther Eugene Kenner, Byron Florence	LA		Pana
Kennedy Luther Fugene	ChE	57	Springfield
Wennedy, Edither Edgene	ME		Pasadena, Calif.
Kenner, Byron Florence		32	
Kennicott, Sylvia Adelia	LA		Chicago
Kent, Everett Frank	Agr		Gridley
Vant Las Caroon	ĒĒ	130	Gridley
Kent, Lee Carson			
Kenyon, Frederick Newcomb	Agr	98	Peoria
Keran, Paul Clemens	L	71	Champaign
Kercher Oscar B	CE (SS)	75	Goshen Ind.
Kercher, Oscar B Kercher, Otis			Goshen, Ind. Goshen, Ind.
Kercher, Ous	Agr	69	Gosnen, Ina.
Kern, Esther Allen	HSLA	60	Rockford
Kern, Evans Sherwood	Agr	101	Rockford
Vara Edward Laster	EE		Streator
Kern, Edward Lester	EL		
Kern, Fred	2		Clinton
Kern, Edward Lester Kern, Fred Kern, Lowell Davidson	S L sp CE	50	Watseka
Kernoll, Russell Twist	CE.		Rochester
TZ - D 1 TT	ME		Attica, Ind.
Kerr, Robert Hewston	ME		
Kerrigan, Paul Francis	S	63	Michigan City, Ind.
Kerrigan, Paul Francis Kessinger, Ruth	SS	10	Litchfield
Kessler Clarence Henry	FF	102	Kirbsnood
Kessler, Clarence Henry	S SS EE	108	Kirkwood
Kessler, Clarence Henry Kessler, Raymond Blaine	L	108 24	Robinson
Kessler, Clarence Henry Kessler, Raymond Blaine Kihhe, Kyle Albert	L S	24	Robinson Urbana
Kessler, Clarence Henry Kessler, Raymond Blaine Kihhe, Kyle Albert	L S	24	Robinson Urbana
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur	L S AE	2 <i>4</i> 5 <i>8</i>	Robinson Urbana Urbana
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr.	L S AE BLA	24 58 53	Robinson Urbana Urbana Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr.	L S AE BLA CE	2 <i>4</i> 5 <i>8</i>	Robinson Urbana Urbana Chicago Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd. Lilace Mazoe	L S AE BLA CE	24 58 53	Robinson Urbana Urbana Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd. Lilace Mazoe	L S AE BLA CE LA sp	58 53 33	Robinson Urbana Urbana Chicago Chicago Astoria
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd. Lilace Mazoe	L S AE BLA CE LA sp EE	58 53 33 78	Robinson Urbana Urbana Chicago Chicago Astoria Minier
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence	L S AE BLA CE LA sp EE	24 58 53 33 78 26	Robinson Urbana Urbana Chicago Chicago Astoria Minier Paris
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Eilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis	L SAE BLA CE LA sp EE LA CE	58 53 33 78	Robinson Urbana Urbana Chicago Chicago Astoria Minier Paris Urbana
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma	L SAE BLA CE LA sp EE LA CE	24 58 53 33 78 26	Robinson Urbana Urbana Chicago Chicago Astoria Minier Paris
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma	L S AE BLA CE LA sp EE LA CE Mus sp	24 58 53 33 78 26	Robinson Urbana Urbana Chicago Chicago Astoria Minier Paris Urbana Springfield
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma	S AE BLA CE LA sp EE LA CE Mus sp	24 58 53 33 78 26 108	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo.
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma	S S AE BLA CE EE LA CE Mus sp A EE	24 58 53 33 78 26	Robinson Urbana Urbana Chicago Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	S AE BLA CE LA sp EE LA CE Mus sp	24 58 53 33 78 26 108	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	S S AE BLA CE EA CA CE Mus sp A EE Mus sp A EE ME	24 58 53 33 78 26 108	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	L S AE BLA CE LA sp EE CE Mus sp A EE ME SS	24 58 53 33 78 26 108	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	L S AE BLA CE LA sp EL CE Mus sp A EE ME SS SS HSAgr	24 58 53 33 78 26 108 42 83 2-3	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind.
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	L S AE BLA CE LA sp EE LA CE Mus sp AE EE Mus sp AE EM EM SS HSAgr ME (SS)	24 58 53 33 78 26 108 42 2 83 2-3 62	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Urbana Lincoln
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	L S AE BLA CE LA sp EE LA CE Mus sp AE EE Mus sp AE EM EM SS HSAgr ME (SS)	24 58 53 33 78 26 108 42 2 83 2-3 62	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley	L S AE BLA CE LA sp EE LA CE Mus sp A EE ME SS HSAgr ME (SS) HSAgr (SS)	24 58 53 33 78 26 108 42 2 83 2-3 62	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward	L S AE BLA CE LA sp EE Mus sp A EE ME SS ME SS HSAgr ME (SS) HSAgr (SS) EE	24 58 53 33 78 26 108 42 2 83 2-3 62 98	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward	L S AE BLA CE LA sp EE LA CE Mus sp AE EE ME SS HSAgr HSAgr (SS) HSAgr (SS) Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 62 98 32 <sup>1</sup> / <sub>2</sub>	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Rondodhouse Centralia
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward	L S AE BLA CE LA sp EE LA CE Mus sp A EE ME SS HSAgr ME (SS) HSAgr (SS) HSAgr (SS) EE Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32½ 21	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward	L S AE BLA CE LA sp EE LA CE Mus sp AE EE ME SS HSAgr HSAgr (SS) HSAgr (SS) Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 62 98 32 21 90	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Rondodhouse Centralia
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac	L S AE BLA CE LA sp EE LA CE Mus sp A EE ME SS HSAgr HSAgr (SS) HSAgr Agr Agr Agr A	24 58 53 33 78 26 108 42 2 83 2-3 62 98 32 21 90	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac	L S AE BLA CE LA sp EE LA CE Mus sp AE EME SS HSAgr HSAgr (SS) HSAgr (SS) HSAgr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32 21 90 5	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Riclimond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, George Wilson Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius	L S AE BLA CE LA sp EE LA sp EE Mus sp A EE ME (SS) HSAgr (SS) HSAgr (SS) EE Agr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 62 9 9 8 32 21 90 5 33	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, George Wilson Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius	L S AE BLA CE LA sp EE LA CE Mus sp ME SS HSAgr HSAgr (SS) HSAgr Agr Agr Agr Agr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32 21 90 5 33 119	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago Wauwatosa, Wis.
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, Charles Stanley King, DeWitt Leonard King, Florence Beeson King, Florence Beeson King, Florence Beeson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius Kirchoff, Roger Charles	L S AE BLA CE LA sp EE LA CE Mus sp ME SS HSAgr HSAgr (SS) HSAgr Agr Agr Agr Agr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32 <sup>1</sup> / <sub>2</sub> 21 90 5 33 119 44	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, George Wilson Kidd, Cliace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius Kirchhoff, Roger Charles Kirk, Bonum Lee	L S AE BLA CE LA sp EE LA CE Mus sp A EE ME SS HSAgr ME (SS) HSAgr (SS) EE Agr Agr Agr Agr A	24 58 53 33 78 26 108 42 2 83 2-3 98 32 <sup>1</sup> / <sub>2</sub> 21 90 5 33 119 44	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago Chicago Chicago Carbondale
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius Kirchhoff, Roger Charles Kirk, Bonum Lee Kirk, Bonum Lee Kirk, George Godwin	L S AE BLA CE LA SP EE LA SP A EE ME SS ME (SS) HSAgr (SS) HSAgr Agr Agr Agr Agr Agr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32 21 90 5 33 119 44 65	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago Wauxatosa, Wis. Carbondale Belleflower
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, DeWitt Leonard King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Jeff Johnson King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirber, Helmuth Julius Kirchoff, Roger Charles Kirk, Bonum Lee Kirk, George Godwin Kirk, Hadden Spurgeon	L S AE BLA CE LA sp EE LA CE Mus sp AE EME SS HSAgr ME (SS) HSAgr (SS) HSAgr Agr Agr Agr Agr Agr Agr A	24 58 53 33 78 26 108 42 2 83 2-3 98 32 21 90 5 33 31 44 65 33 33	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Rodhouse Centralia Mineral Decatur Chicago Wawwatosa, Wis. Carbondale Belleflower Belleflower
Kessler, Clarence Henry Kessler, Raymond Blaine Kibbe, Kyle Albert Kibbe, Leslie Arthur Kidd, Albert Eugene, Jr. Kidd, George Wilson Kidd, Lilace Mazoe Kilby, Hubert St.Clair Kile, Walter Terrence Kimbell, Arthur Willis Kinber, Alice Emma Kincade, John Dudley King, Charles Stanley King, DeWitt Leonard King, Eva Gertrude King, Florence Beeson King, Jeff Johnson King, Jeff Johnson King, Jeff Johnson King, Lillian May King, Mark Ward Kinsey, Ernest Gilmore Kipp, Marion Kirby, Wayne Isaac Kircher, Armin Martin Kircher, Helmuth Julius Kirchhoff, Roger Charles Kirk, Bonum Lee Kirk, Bonum Lee Kirk, George Godwin	L S AE BLA CE LA SP EE LA SP A EE ME SS ME (SS) HSAgr (SS) HSAgr Agr Agr Agr Agr Agr Agr Agr Agr	24 58 53 33 78 26 108 42 2 83 2-3 98 32 21 90 5 33 119 44 65	Robinson Urbana Urbana Chicago Astoria Minier Paris Urbana Springfield Kansas City, Mo. Rock Island Tonica Urbana Richmond, Ind. Lincoln Plymouth Roodhouse Centralia Mineral Decatur Chicago Wauxatosa, Wis. Carbondale Belleflower

Kirkland, Annirene	LA	68	Urbana
	1 (00)		
Kirkland, Archibald Farley	A(SS)	34	Cambridge
Kirkpatrick, Charles Hubert	BLA		Lafayette, Ind.
Kirkpatrick, Charles Hubert Kirkpatrick, Earl Henry	Agr	231	Roseville
TZ' 1 - 4 - 1 To 1 A11	C 5		Roseville
Kirkpatrick, Frank Allen	Cer E	81	Unionville, Mich.
	HSLA	64	Moline
Vistorateiale Cidese Data		0,	
Kirkpatrick, Siulley Dale	ChE		Urbana
Kirkpatrick, Sidney Dale Kirkpatrick, William Stewart Kirkwood, Roger Kisselburg, Bert Mills	CE	42	Kentland, Ind.
Kirkwood Roger	Agr	16	Lawrenceville
Tri 11 D . 36'11		10	
Kisselburg, Bert Mills	Agr		Chicago
	HSLA		Tiskilwa
L'ittamon Dahant Man			
Kitterman, Robert Max	ME		Tiskilwa
Klamt, Robert Herman	Agr		Chicago
Klank Frances Cross			
Malik, Plances Glace	LA		campaign
Klehm, George Charles Henry	Agr	31	Arlington Heights
Klein Carroll Aaron	A		Davenport, Ia.
Tri . Di			Davenport, 16.
Miein, Piorence	HSLA		Roachdale, Ind.
Kisterman, Robert Max Klamt, Robert Herman Klank, Frances Grace Klehm, George Charles Henry Klein, Carroll Aaron Klein, Florence Klein, Minnie George Klein, Nancie	HSS	66	Urbana
Visin Nameia	CC		
Klein, Nancie	SS SS	$28\frac{1}{2}$	Urbana
	SS	132	Litchfield
Klaincohradt Barnia I land	Agr	651	
Kleinschredt, Bernie Lloyd Klemme, LaVon Mildred Klemme, Vivian Gertrude		022	Morrison
Klemme, LaVon Mildred	Mus		Dows, Iowa Dows, Iowa
Klemme Vivian Gertrude	LA		Dogue Togue
Triti	2021		2003, 2000
Kline, Byron Dooley	Agr		LeRoy
Klingensmith, Paul Opher	A		Indianapolis, Ind.
Klippel, Gustav Chapin Klontz, Clayton Wilson Klopp, Charles Gorr Knapp, Charles Ellsworth	ChE		
Kiippei, Gustav Chapin	ChE		Indianapolis, Ind.
Klontz, Clayton Wilson	SS CE	741	McConnell
Klonn Charles Corr	CE		El Paso
Klopp, Charles Golf	CE		
Knapp, Charles Ellsworth	SS		Rushville
Knapp, Lloyd Dunaway	CE	37	Ottawa
To be it street	CL	21	Ottawa
Knapp, Martha Winifred, A.B. (Ohio Wesleyan Univ.) 1899			
A.B. (Ohio Weslevan Univ.) 1899	Lb	41	LeRoy, Ohio
L'accombance Harry Former			
Knappenberger, Harry Farrar	A	83	Macomb
Kneisly, Nathaniel McKay	Agr	631	Guthrie, Okla.
Knemeyer, Edward Franz	A	72	Guthrie, Okla. Mason, Nevada
Kilchieyer, Edward Franz		14	Mason, Nevada
Knight, John Clement	Agr	711	Yorkville
Knight Paul	BLA	30	Wabash, Ind.
Tr. M. C. T.	DELL COOL		wadash, ina.
Knight, John Clement Knight, Paul Knodle, Cary Lee Knoebel, Wilbert George	ME (SS)	40	Elgin
Knoebel, Wilbert George	$\boldsymbol{A}$	341	Highland
Knowlton Fligsboth	HSLA	40	
Knowlton, Elizabeth Knowlton, Miriam Knowlton, Philetus Clarke, Jr.		69	Urbana
Knowlton, Miriam	LA	66	Urbana
Knowlton Philetus Clarke Tr	A	99	Memphis, Tenn.
Triowiton, I mictus Clarke, jr.			
Knox, Leo Melville	Agr	32 <del>1</del>	Morrison
Knox, Leta Alice Knox, Loy J Knox, Otela	HSAgr		Morrison
Vnov Lou I			
KHOX, LOY J	Agr		Morrison
Knox, Otela	Mus	30	Chicago
Knox, Raymond Kenneth	A	120	Pittsfield
Variable Ct. of a Militian	CT (CC)		
Knudsen, Charles William	Ch (SS)	104	New Berlin
Kobylanski, Joseph Ludwick	AE	33	Chicago
Kobylanski, Joseph Ludwick Koch, Charles Edward Koch, Harvey Charles	ME	36	
Troch, Charles Edward	ME		Danville
Koch, Harvey Charles	ME	67	Cloquet, Minn.
Koehler, John Koepke, Edward Robert Kohin, Thomas Francis Kohout, Jerome Francis	AE		Tacoma, Wash.
Vacata Edward Dahard			
Roepke, Edward Robert	CE		Chicago
Kohin, Thomas Francis	ChE		LaSalle
Kohout Toromo Francia	Ch	110	
Ronout, Jeroide Francis	Ch	119	Chicago
Koll, Mary Elizabeth	HSLA		Chicago
Kollmeyer Carl Schwartzkonf	BLA		
Tr - Tr r-		0.0	Columbus, Ind.
Koll, Mary Elizabeth Kollmeyer, Carl Schwartzkopf Koo, Vi-Tsing Kopf, Frank Elexander	EE (SS)	82	Columbus, Ind. Shanghai, China
Kopf, Frank Elexander	Ch	68	Champaign
Kontil: George	C	-	Chicago
Koptik, George Korb, Helen Lydia	Ch S SS SS		Chicago
Korb, Helen Lydia	55	8	Lincoln
Koronski, George W	22	5	Narberth, Pa.
Familia Com	55		
Norsnak, Sam	A	70	Chicago
Kosters, Stuart Farnsworth	CE	117	Chicago
Koronski, George W Korshak, Søm Kosters, Stuart Farnsworth Koupal, Agnes R	HSLA		
Factle Edward M			Chicago
Krabbe, Edward Max	EE	74	Urbana

** * * * * * *			Cit
Kraeckmann, Arthur Endres	Agr		Chicago
Kraeger, John Franklin	Ch	118	Pekin
Kraeger, John Franklin Kramer, Charles George	MnE	36	
Kramer, Charles George			Dorchester, Mass.
Kramer, Jesse C	EE	111	Chicago
Krebaum, Alta Krebs, Wilbur Edward Krebs, William Samuel	SS		Havana
Michauli, Alta			
Krebs, Wilbur Edward	LA		Belleville
Krehs William Samuel	BLA	100	Oak Park
Vrient Flie Comme	ME		Chicago
Kriegh, Elie Spencer Kritzer, Richard Walker			
Kritzer, Richard Walker	Agr		Chicago
Kromer, Carrie Adelaide	LA	32	Elgin
		02	
Krueger, Kurt Carl	Ch		LaSalle
Krueger, Otto Arthur	AE	36	So. Bend, Ind.
Krug Louis Curtova	ChE		Chicago
King, Louis Gustave			
Krug, Louis Gustave Ku, Tsong-Lin	LA	63	Shanghai, China
Kuerschen Albert Peter	CE		Carlinsville
Kugler Martin Billmire	CE	36	Yorkville
Trugici, Martin Dillinic	15		
Kugler, Martin Billmire Kuhl, John Henry, Jr.	AE	111	Peoria
Kuhn, Henry Harrison	ME	73	Rock Island
Kuhn, Henry Harrison Kuhn, Wilfred Henry	CE	41	Chicago
Kunn, winted fichily	CE	72	
Kuhnen, Proctor George	CE		Dixon
Kuhnen, Proctor George Kuhns, John Christian Kupper, Walter Jacob	EE	57 <del>1</del>	Argenta
Kunner Walter Jacob	Aar		Peoria
V. A Take Tacanh	Agr ME	071	
Kurt, John Joseph Kurt, Leo Peter, Jr.		871	Champaign
Kurt, Leo Peter, Jr.	ME (SS)	29	Champaign
Kyle, George Lane	EE	44	Chicago
	LA		Lawrenceville
Lackey, Kate			
LaClair, Strawn	Agr sp		Medford, Ore.
Lafferty, George Gustavus	SS	23	Knoxville
Lofferty John Sam	AE	55	Ashley
Lancity, John Sam			
Lafferty, George Gustavus Lafferty, John Sam LaFrenz, Grace Etheridge Lakoff, Charles Benjamin	LA	28	Bushnell
Lakoff, Charles Benjamin	Ch		Chicago
Lamb, Edith Jane	LA (SS)	66	Champaign
Tamb, Edith Jano		00	
Lambroff, Gregory Vesileff Lamkey, Ernest Michael Rudolph Lamkins, Loyde E	EE		Madison
Lamkey, Ernest Michael Rudolph	S (SS)	110	Riverton
Lambins Loyde E.	Agr		Champaign
I aman Com			
Lanan, Guy	Agr		Kingston
Lancaster, Ruth Ellen Landee, Anna Irene Landee, Marian Charlotte	LA	35	Maywood
Landee, Anna Trene	LA	31	Moline -
Landon Marian Charlotta	LA sp	8	Moline
Landee, Marian Charlotte		70	
Landon, Herbert Updike	Agr	72	Jerseyville
Landry, Adelbert Joseph	CE		Rockford
Lama Cora Mary	LA (SS)	91	Danville
Lane, Cora May Lane, Henry Harold	Dr. (SS)	/ 4	
Lane, Henry Harold	BLA		Harvey
Langan, Clarence Leo	Agr sp	281	Kankakee
Lange, Lloyde H	CE		Rockford
Lange, Droyde II	RME (SS)	57	
Lanier, Russell D'Lyon	KME (33)	1 31	Birmingham, Ala.
Lansche, Oral Albert Lantz, Cyrus William	EE		Brighton
Lantz, Cyrus William	S	1051	Birmingham
Lanta Etta Mahla	LA	74	Carlock
Lantz, Etta Mable	Dr. 4		
Lanum, Harold Baird	BLA	821	Urbana
Largent, Jess Charles Larkin, Francis DuLude	AE		Champaign
Larlin Francis Dul ude	S (SS) LA	1051	Chicago
Larkin, Flancis DuLade	2 (00)		
Larkin, Ida Clementine	LA	106	Kansas City, Kans.
Larkin, William James, Jr.	AE	111	Chicago
Larkin, Ida Clementine Larkin, William James, Jr. Larsen, David Thorsten Larsen, Lester Reginald	S ME	25	Elgin
Tarrer Tarter Desirald	ME	108	
Larsen, Lester Reginald			Chicago
Larson, Eva Lillian	HSLA	62	Chicago
Larson, Irving Nicholas	A	31	LaPorte, Ind.
Largon Lambert Linus	ChE	64	Mazon
Larson, Lambert Limus			
Larson, Lambert Linus LaRue, Maurice John LaSell, Florence Lenore	Agr sp	91	Chicago
LaSell, Florence Lenore	Mus		Champaign
Lathrop, Charlton Page	Agr		Chicago
Lattin Dohost Thomas	EE	120	Hamilton, Ontario
Lattin, Robert Inomas			
Latzer, Irma Ada	HSS	59	Highland
Lattin, Robert Thomas Latzer, Irma Ada Lauterbach, Edward George	Agr	22	Bushnell
Lavadia, Pedro Celestino	Agr sp	31	Pagsanghan, P. I.
220100.01 2 0010 001001110	aE		

Lawless, Joseph Conrad	Agr	55	Carthage
Lawless, Joseph Conrad Lawnin, Nelson	ME		Edwardsville
Lawrence Ernect		44	
Lawrence, Ernest	Agr	66	Hudson
Lawrence, Lorena Lucille	HSLA		Clinton
Laws, Joel William	Agr sp		Donnellson
Lawton, Bradley Cleaver	BLA	231	Cleveland, Ohio
	CE sp	21	Cleveland, Ohio Huleh, China
Lay, Chung-Yuen			Timen, China
Layden, I heodore Edmond	Agr	108	Cheneyville
Layden, Theodore Edmond Leach, Margaret Fanny	HSLA	101	Chicago
Leander, Elmer Isidor Leander, LeRoy Nathaniel	CE		Chicago
Leander LeRoy Nathaniel	EE		Chicago
Leanuer, Leroy Nathamer	LL		Chicago
Leatherman, Marian,			
A.B. (Cornell Univ.) 1907	Lb		Pittsburg, Pa.
Leavens, Arthur Fowen	AE	35	Kansas City, Mo.
Leavitt Herbert Douglas	Agr		Bloomfield, Ind.
Leavens, Arthur Fowen Leavitt, Herbert Douglas Lecour, Louis Paul			
Lecour, Louis Faul	Agr sp		Kankakee
Leagerwood, Leroy William	AE		Springfield, Mo.
Lee, Carrie Alice Lee, Everett Samuel	Mus	19	Champaign
Lee Everett Samuel	EE	108	River Forest
T T			
Lee, Izora	HSAgr	67	Aledo
Lee, Thomas Wikoff	Agr sp		Kansas City, Mo.
Lee, William Hamilton	L	28	Urbana
Lee, Izora Lee, Thomas Wikoff Lee, William Hamilton Lee, Ying Nan LeeToma, Ethel Kinkyan Leibsle, Roy Walter	L S	76	Shanghai, China
Lee, Thig Ivan	7 1	70	Translate Transii
LeeToma, Ethel Kinkyan	LA		Honolulu, Hawaii
Leibsle, Roy Walter	A		Des Moines, Ia.
	AE	17	Chicago
Loighty Wayne Sander	Agr		Billett
Leighty, wayne Snyder			
Leiserwitz, Samuel Brody	Md	26	Herscher
LeKander, Roy Edward	CE		West Chicago
Leighty, Wayne Snyder Leiserwitz, Samuel Brody LeKander, Roy Edward Lekberg, Carl Helge Samuel	EE	72	South Chicago
Lammon Edgar Guy	BLA		Roodhouse
Lemmon, Edgar Guy Lemmon, Ross Barton			
Lemmon, Ross Barton	BLA		Roodhouse
Lemp, John Frederick	ChE		Alton
Lenhart, Norman Joseph	BLA		Mattoon
T A 1 YY	EE		Quincy
Lenz, Andrew Henry	CLE		Chiana
Lenzing, Chester William	ChE		Chicago
Leonard, Frank Bonner, A.B., 1912	SS		Metropolis
Leonard, William Nathan	Agr (SS)	25	Anna
Leonold Elmer Edward	L	35	Belleville
Lenzing, Chester William Leonard, Frank Bonner, A.B., 1912 Leonard, William Nathan Leopold, Elmer Edward Leopold, Poland Evenne	BLA	15	
Leopold, Roland Eugene Leriche, Willis		13	Belleville
Leriche, Willis	MnE	73 107	Highland
	ChE	107	Ottarva
Leverenz, Arthur Charles Gustav Levin, Eli Levis, William Edward Levis, Walter Rhodes	ME	35	Elgin
Leverenz, Illinui Charles Gustav	Md	9	Indiana Harbor, Ind.
Levin, Ell	TILL		
Levis, William Edward	L S	87	Alton
Levis, Walter Rhodes	S	30	Alton
Lewin William Frank	Agr sp		Comstock, Nebr.
Lewin, William Frank Lewis, Clara Vesta Lewis, John Edwin Lewis, Katharine, A.B., 1912	HSLA	61	Cairo
Lewis, Clara Vesta	CE		
Lewis, John Edwin	CE	75	Wheaton
Lewis, Katharine, A.B., 1912	Lb		Chicago
Lewis, Louise Laura Lewis, Luther Mason	HSAgr (SS	5) 93	Cairo
Lewis Luther Mason	L	,	Chicago
Lewis, Lutilei Mason	20	6	
Lewis, Llewellyn Roy	SS S	0	Mexico City, Mex.
Lewis, Thomas Dickerson Lewis, Thurlow Girard	S		Wheaton
Lewis, Thurlow Girard	L (SS)		Sesser
Liang, Hsun-Ying	ME (SS)	20	Foo-Chow, China
Liona Tu II	Age	30	Canton, China
Liang, Tu Hung	Agr CE (SS)		
Lichter, John Paul	CE (33)	36	Chicago
Lichter, John Paul Lichter, Homer Edward Liegett, David Carl Liggett, Irene Lillian	Agr sp Md (SS)		Chicago
Liggett, David Carl	Md (SS)	1151	Camp Point
Liggett Irone Lillian	LA	2	Camp Point
Liggett, Telle Lillan	CE	721	
Liggett, Leslie Alvin	CE CE	731	Peoria
Light, Curtis Roy	CE	103	Brook, Ind.
Light, Vera	LA	27	Chrisman
Liggett, Leslie Alvin Light, Curtis Roy Light, Vera Lillie, Jacob Samuel	LA SS	11	W. LaFayette, Ind.
Linhardan Silas Cani	CerE	33	Champaign
Linbarger, Silas Carl	CEIL	33	Onumpaign

Lindberg, George Isadore	ME	35	Princeton, Mich.
Linder, Grace Linder, Lewis S	SS	50	Urbana
Linder Lewis S	5	651	Charleston
Tinder, Lewis S	S LA		
Lindley, Bess Mae Lindley, Ida Hubbard		65	Urbana
Lindley, Ida Hubbard	LA	27	Urbana
lindmark Edward Emanuel	CerE		Sycamore
Lindquist, Fred Arthur Lindsay, Horace Willard Lindsey, George Heath	ME		Plano
Tindenst, Tree Miller	EE		
Lindsay, Horace Whiard			Rockford
Lindsey, George Heath	EE	47	St. Louis, Mo.
Link, Earl John	Agr	491	Forreston
Link, Hilah Jane	LA	30	Champaign
Linelan Propose	SS		
Linskey, Frances	33	6	Streator
Linskey, Frances Linsley, Clyde Maurice Lippe, Raymond Wills Liss, Oscar Lippman	Agr SS	331	Fairfield
Lippe, Raymond Wills	SS	52	Champaign
Liss Oscar Linnman	CE (SS)	69	Lodz, Russia
Liss, Oscar Erppinan	BLA	52	
Little, Alfred Leonard	DLA	32	Chicago
Little, Charles Reeves	BLA		Urbana
Little, Ethel Esther	S	49	Champaign
Little, Janet Gertrude	22	7	Kingsley, Iowa
Little, Janet Gertrade	36	<b>'</b>	
Little, Mrs. Julia Bush Littler, Carrie	Mus	8	Champaign
Littler, Carrie	SS	6	Potomac
Livesay, Ruth Flagg Livesay, Wallace Bright Lloyd, Thomas Harold	LA		Nashville
Liverny Wallace Pright	AE		Waynesboro, Va.
Livesay, wanace bright		25	
Lloyd, Thomas Harold	Agr	25	Girard
Locke, Clara Edith	HSS	96	Terre Haute, Ind.
Loeffler Frank Xavier	CE	110	Chicago
Loeffler, Frank Xavier Loehr. Theodore Edwin	LA	139	
Loenr, Incodore Edwin			Carlinville
Loh, Pao Kan	Agr (SS)	$115\frac{1}{2}$	Soo Chow, China
Lohnes, Willard Henry	RME sp		Cherokee, Ia.
Lohr, Louis Warren	BLA	99	Pana
Louis Warren	LA	,,,	
Long, John Oras Long, Thomas Henry			Watseka
Long, Thomas Henry	Agr sp	1	Harmon
Longden, Grafton Johnson	Agr	40%	Grencastle, Ind.
Longueville, Joseph Charles	A	67 1	Dubuque, Ia.
Longuevine, Joseph Charles		0/ 2	
Loomis, Clayton Benjamin	Agr		Chicago
Loose, Isaac Arthur	Agr sp	12	Illiopolis
Lonez Asuncion V	CE (SS)	841	Durango, Mex.
Lopez, Asuncion V Lotz, Harold Benjamin	AE	0.2	Madison Ind
Lotz, Harold Benjamin			Madison, Ind.
Loutzenhiser, Sarah Eula	LA	103	Danville
Loutzenhiser, Sarah Eula Love, Clifford Sharon	Agr		Sidney
Loveless, William Raymond	CE	69	Altamont
Tama Estathant Color	L	0,	
Lowe, Ethelbert Coke			Robinson
Lower, Paul Elton Lowry, Kathryn Ellen	Agr	64	Chicago
Lowry, Kathryn Ellen	Mus sp		Fairland
Luckett, Coen L	S	67	Terre Haute, Ind.
	SS		
Luckhaupt, Fannie May		$11\frac{1}{2}$	Marshall
Ludvik, Benjamin Edward	LA		Chicago
Ludvik, Benjamin Edward Ludwig, Holly Jacob Ludwig, Lester John	Agr sp		Urbana
Ludwig Lester John	LA		Ottawa
Lucidia Custon David		421	
Luedke, Gustav Paul	S sp	$63\frac{1}{2}$	Chatham
Lumley, Harold McLean	Agr		Urbana
Lumley, Harold McLean Lumley, Leslie Robert Lund, John Virtus Lunde, George Richard	Agr		Urbana
Lund John Virtus	CE		Elgin
Lund, John Virtus			
Lunde, George Richard	Agr		Chicago
	ME	$35\frac{1}{2}$	Chicago
Lundin, Roy Simeon	Agr	37	Chicago
Lundquist Theodor Hislmer	S		Buffalo, N. Y.
Landquist, Incodor Hjaimai		110	D. V - 12
Luney, Edward Ross	ME	110	DeKalb
Luney, Ray Timothy	L	62 ½	DeKalb
Lurie, Erwin Moses	CE	89	Chicago
Lutz Robert Stockey	EE	32	
Lutz, Robert Stockey			Decatur
Lundgren, Frederick Gunnard Lundin, Roy Simeon Lundquist, Theodor Hjalmar Luney, Edward Ross Luney, Ray Timothy Lurie, Erwin Moses Lutz, Robert Stookey Lux, Thursa Edna		4	Monticello
Tyman I divic Thornton	SS		
	Agr sp		Puna, Hawaii
	Agr sp		Puna, Hawaii Greensburg, Ind.
Lynn, John Robert Lyon, John Boyd	Agr sp A Cer		Puna, Hawaii Greensburg, Ind. LaHarpe
	Agr sp	8	Puna, Hawaii Greensburg, Ind.

Lyons, Hazel Sibyl Lyons, Hazel Sibyl Lyons, Roy Jacob McAdams, May Elizabeth McAdee, Leo Gay McAndle, Montrose Pallen McBeath, Grace McBroon, Leland Albert McCarel, Claude Lee McCanna, David Thomas McCarthy, Frank William McCardle, James McCauley, Louis Douglass McCauley, Charles Hartman McCauley, Laise John McClintock, Margaret Christine McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McCormick, Elmer McCormick, Elmer McCoy, Henry James McCoy, Henry James McCoy, Henry James McCoy, Henry Same McCulloch, Harry Weber McCulloch,				
Lyons, Inclen Margaret Lyons, Roy Jacob McAdams, May Elizabeth McAdee, Leo Gay McAnally, Jesse Franklin McAndle, Montrose Pallen McBeath, Grace McBroon, Leland Albert McCabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCattly, Frank William McCattly, Frank William McCauley, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCauley, Garge Leo McClelland, Miles John McClelland, Miles John McClelland, Miles John McClintock, Margaret Christine McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCornock, Elmer McCoy, John Jay McCornock, Elmer McCoy, John Jay McCoracken, Wendell Kemp McCullough, Helen E McCune, Joseph McCray McDavid, Joel Furnas MacDonald, James Edward William MacDonald, James Edward William MacDonald, James Edward William McDougle, May McDavid, Joel Furnas MacDonald, James Edward William McDougle, Way McDavid, Joel Furnas MacDonald, James Edward William McDougle, Way McDavid, Joel Furnas MacDonald, James Edward William MacDonald, James Edward William McDougle, May McDavid, Joel Furnas MacGaughey, Guy Ennis McGaughey, Guy Ennis McGaughey, Guy Ennis McGaughey, Guy Ennis McGarth, James McGraw, Katherine Leslie McGrew, Charles Babcock McKee, Olivetta C McKeen, Olivetta C	Lyons, Carrie Fay			Urbana
Lyons, Inclen Margaret Lyons, Roy Jacob McAdams, May Elizabeth McAdee, Leo Gay McAnally, Jesse Franklin McAndle, Montrose Pallen McBeath, Grace McBroon, Leland Albert McCabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCattly, Frank William McCattly, Frank William McCauley, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCauley, Garge Leo McClelland, Miles John McClelland, Miles John McClelland, Miles John McClintock, Margaret Christine McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCornock, Elmer McCoy, John Jay McCornock, Elmer McCoy, John Jay McCoracken, Wendell Kemp McCullough, Helen E McCune, Joseph McCray McDavid, Joel Furnas MacDonald, James Edward William MacDonald, James Edward William MacDonald, James Edward William McDougle, May McDavid, Joel Furnas MacDonald, James Edward William McDougle, Way McDavid, Joel Furnas MacDonald, James Edward William McDougle, Way McDavid, Joel Furnas MacDonald, James Edward William MacDonald, James Edward William McDougle, May McDavid, Joel Furnas MacGaughey, Guy Ennis McGaughey, Guy Ennis McGaughey, Guy Ennis McGaughey, Guy Ennis McGarth, James McGraw, Katherine Leslie McGrew, Charles Babcock McKee, Olivetta C McKeen, Olivetta C	Lyons, Hazel Sibyl	LA		Urbana
McAnally, Jesse Franklin McAndle, Montrose Pallen McAndrose, Claude Lee McGabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCaty, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCallend, Miles John McClelland, Miles John McClelland, Miles John McClelland, Miles John McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCorracken, Howard Orr McCoracken, Wendell Kemp McCoy, John Jay McCracken, Wendell Kemp McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Joel Furnas McCulloch, Harry Weber McCulloch, Joel Furnas McDonald, James Edward William McGaughey, Guy Ennis McGee, Charles Son McGaughey, Guy Ennis McGee, Charles Las McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C	Lyons, Lelen Margaret	SS	8	Pontiac
McAnally, Jesse Franklin McAndle, Montrose Pallen McAndrose, Claude Lee McGabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCaty, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCallend, Miles John McClelland, Miles John McClelland, Miles John McClelland, Miles John McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCorracken, Howard Orr McCoracken, Wendell Kemp McCoy, John Jay McCracken, Wendell Kemp McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Joel Furnas McCulloch, Harry Weber McCulloch, Joel Furnas McDonald, James Edward William McGaughey, Guy Ennis McGee, Charles Son McGaughey, Guy Ennis McGee, Charles Las McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C	Lyons, John Daniel	L		Chicago
McAnally, Jesse Franklin McAndle, Montrose Pallen McAndrose, Claude Lee McGabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCaty, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCallend, Miles John McClelland, Miles John McClelland, Miles John McClelland, Miles John McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCorracken, Howard Orr McCoracken, Wendell Kemp McCoy, John Jay McCracken, Wendell Kemp McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Joel Furnas McCulloch, Harry Weber McCulloch, Joel Furnas McDonald, James Edward William McGaughey, Guy Ennis McGee, Charles Son McGaughey, Guy Ennis McGee, Charles Las McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C	Lyons Roy Tacob		711	
McAnally, Jesse Franklin McAndle, Montrose Pallen McAndrose, Claude Lee McGabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCaty, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCallend, Miles John McClelland, Miles John McClelland, Miles John McClelland, Miles John McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCorracken, Howard Orr McCoracken, Wendell Kemp McCoy, John Jay McCracken, Wendell Kemp McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Joel Furnas McCulloch, Harry Weber McCulloch, Joel Furnas McDonald, James Edward William McGaughey, Guy Ennis McGee, Charles Son McGaughey, Guy Ennis McGee, Charles Las McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C	Mo Adams May Elizabeth		1-3	
McAnally, Jesse Franklin McAndle, Montrose Pallen McAndrose, Claude Lee McGabe, Claude Lee McCanna, David Thomas McCarthy, Frank William McCaty, Charles Hartman McCauley, Charles Hartman McCauley, Charles Hartman McCallend, Miles John McClelland, Miles John McClelland, Miles John McClelland, Miles John McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCorracken, Howard Orr McCoracken, Wendell Kemp McCoy, John Jay McCracken, Wendell Kemp McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Harry Weber McCulloch, Joel Furnas McCulloch, Harry Weber McCulloch, Joel Furnas McDonald, James Edward William McGaughey, Guy Ennis McGee, Charles Son McGaughey, Guy Ennis McGee, Charles Las McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C	Nichtains, May Enzabeth			
McBroon, Leland Albert McCabe, Claude Lee McCabe, Claude Lee McCathy, Frank William McCanstill, Kenneth Alexander McCauley, Frank William McCauslill, Kenneth Alexander McCauley, Louis Douglass McCauley, James McClelland, George Leo McClelland, Miles John McClintock, Margaret Christine McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McConnel, Isaac Marion McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCoy, John Jay McCoy, John Jay McCracken, Wendell Kemp McCullough, Helen E McCumebre, Charles william McCune, Joseph McCray McCune, Joseph McCray McDougle, May McDougle, Verne Russell McCune, Joseph McCray McDougle, Verne Russell McGene, Ora M McGorrisk, Daniel Hunt McGardh, James McGorrisk, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKeen, O		DLA		
McBroon, Leland Albert McCabe, Claude Lee McCabe, Claude Lee McCathy, Frank William McCanstill, Kenneth Alexander McCauley, Frank William McCauslill, Kenneth Alexander McCauley, Louis Douglass McCauley, James McClelland, George Leo McClelland, Miles John McClintock, Margaret Christine McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McConnel, Isaac Marion McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCoy, John Jay McCoy, John Jay McCracken, Wendell Kemp McCullough, Helen E McCumebre, Charles william McCune, Joseph McCray McCune, Joseph McCray McDougle, May McDougle, Verne Russell McCune, Joseph McCray McDougle, Verne Russell McGene, Ora M McGorrisk, Daniel Hunt McGardh, James McGorrisk, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKeen, O	McAnally, Jesse Franklin		8	
McBroon, Leland Albert McCabe, Claude Lee McCabe, Claude Lee McCathy, Frank William McCanstill, Kenneth Alexander McCauley, Frank William McCauslill, Kenneth Alexander McCauley, Louis Douglass McCauley, James McClelland, George Leo McClelland, Miles John McClintock, Margaret Christine McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McConnel, Isaac Marion McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McCoy, John Jay McCoy, John Jay McCracken, Wendell Kemp McCullough, Helen E McCumebre, Charles william McCune, Joseph McCray McCune, Joseph McCray McDougle, May McDougle, Verne Russell McCune, Joseph McCray McDougle, Verne Russell McGene, Ora M McGorrisk, Daniel Hunt McGardh, James McGorrisk, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKee, Olivetta C McKeen, Josephim Ore McKee, Olivetta C McKeen, O	McArdle, Montrose Pallen			St. Louis, Mo.
McCarthy, Frank William McCalghey, Louis Douglass McCauley, Charles Hartman McCalley, Charles Hartman McCalledland, Miles John McClintock, Margaret Christine McClugage, Harry Bruce McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Henry Jamy McCoy, John Jay McCoy, John Jay McCoy, John Jay McCoy, John Jay McCacken, Wendell Kemp McCulloch, Harry Weber McCullough, Helen E McCumber, Charles william MacDonald, James Edward William MacDonald, James Edward William MacDonald, Jerbert William McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McGee, Edna Amelia McGee, Edna Amelia McGrawk, Katherine Leslie McGraw, Katherine Leslie McGraw, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Dasph Moore McKee, Olivetta C McKeen, Joseph Moore McKee, Olivetta C McKeen, Joseph Moore MacKee, Olivetta C McKeen, Olspeh Moore MacKee, Olivetta C McKeen, Olspeh Moore MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Jos	McBeath, Grace	Mus	61	Urbana
McCarthy, Frank William McCalghey, Louis Douglass McCauley, Charles Hartman McCalley, Charles Hartman McCalledland, Miles John McClintock, Margaret Christine McClugage, Harry Bruce McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Henry Jamy McCoy, John Jay McCoy, John Jay McCoy, John Jay McCoy, John Jay McCacken, Wendell Kemp McCulloch, Harry Weber McCullough, Helen E McCumber, Charles william MacDonald, James Edward William MacDonald, James Edward William MacDonald, Jerbert William McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McGee, Edna Amelia McGee, Edna Amelia McGrawk, Katherine Leslie McGraw, Katherine Leslie McGraw, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Dasph Moore McKee, Olivetta C McKeen, Joseph Moore McKee, Olivetta C McKeen, Joseph Moore MacKee, Olivetta C McKeen, Olspeh Moore MacKee, Olivetta C McKeen, Olspeh Moore MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Jos	McBroon, Leland Albert		51	Grimes, Iowa
McCarthy, Frank William McCalghey, Louis Douglass McCauley, Charles Hartman McCalley, Charles Hartman McCalledland, Miles John McClintock, Margaret Christine McClugage, Harry Bruce McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormick, Elmer McCoy, Henry Jamy McCoy, John Jay McCoy, John Jay McCoy, John Jay McCoy, John Jay McCacken, Wendell Kemp McCulloch, Harry Weber McCullough, Helen E McCumber, Charles william MacDonald, James Edward William MacDonald, James Edward William MacDonald, Jerbert William McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McGee, Edna Amelia McGee, Edna Amelia McGrawk, Katherine Leslie McGraw, Katherine Leslie McGraw, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Katherine Leslie McGraw, Dasph Moore McKee, Olivetta C McKeen, Joseph Moore McKee, Olivetta C McKeen, Joseph Moore MacKee, Olivetta C McKeen, Olspeh Moore MacKee, Olivetta C McKeen, Olspeh Moore MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Joseph MacMacon, Jos	McCabe, Claude Lee			Willow Hill
McCaskill, Kenneth Alexander McCaughey, Louis Douglass McCauley, Charles Hartman McCauley, James McClelland, George Leo McClelland, George Leo McClintock, Margaret Christine McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McClure, Winifred Leo McCormack, Joseph Hume McCormack, Joseph Hume McCormick, Elmer McCoy, Alva Elisha McCoy, John Jay McConnel, Isaac Marion McCateken, Howard Orr McCracken, Howard Orr McCracken, Wendell Kemp McCulloch, Harry Weber McCullough, Helen E McCumber, Charles william McCune, Joseph McCray McDougle, May McGorinsh, Albert Henry McGarath, James McGarath, James McGraw, Charles Babcock MacHatton, Ralph Alexander McIntosh, Harold Stanton McKee, Olivetta McKee, Oliveta McKee, Ol				Minneapolic Minn
McClure, Winifred Leo McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCoy, Alva Elisha McCoy, Alva Elisha McCoy, John Jay McCracken, Howard Orr McCracken, Wendell Kemp McCullough, Helen E McCullough, Helen E McCumer, Charles william McCune, Joseph McCray McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, Ward McElhiney, Florence McEvoy, Myrtle Loretta McFarland, Dan McFarland, Dan McGaughey, Guy Ennis McGere, Charles Babcock McGraw, Katherine Leslie McGrath, James McGrints, Daniel Hunt McGrints, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacIntosh, Harold Stanton McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Oiveta C McKee, Oiveta C McKee, Oiveta C McKee, Oiv	M.C. atlas Essels William		,	Weshington D. C.
McClure, Winifred Leo McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCoy, Alva Elisha McCoy, Alva Elisha McCoy, John Jay McCracken, Howard Orr McCracken, Wendell Kemp McCullough, Helen E McCullough, Helen E McCumer, Charles william McCune, Joseph McCray McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, Ward McElhiney, Florence McEvoy, Myrtle Loretta McFarland, Dan McFarland, Dan McGaughey, Guy Ennis McGere, Charles Babcock McGraw, Katherine Leslie McGrath, James McGrints, Daniel Hunt McGrints, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacIntosh, Harold Stanton McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Oiveta C McKee, Oiveta C McKee, Oiveta C McKee, Oiv	McCartny, Frank William		451	
McClure, Winifred Leo McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCoy, Alva Elisha McCoy, Alva Elisha McCoy, John Jay McCracken, Howard Orr McCracken, Wendell Kemp McCullough, Helen E McCullough, Helen E McCumer, Charles william McCune, Joseph McCray McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, Ward McElhiney, Florence McEvoy, Myrtle Loretta McFarland, Dan McFarland, Dan McGaughey, Guy Ennis McGere, Charles Babcock McGraw, Katherine Leslie McGrath, James McGrints, Daniel Hunt McGrints, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacIntosh, Harold Stanton McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Oiveta C McKee, Oiveta C McKee, Oiveta C McKee, Oiv	McCaskill, Kenneth Alexander			
McClure, Winifred Leo McClurkin, Clifford Henry McConnel, Isaac Marion McCormack, Joseph Hume McCormack, Joseph Hume McCoy, Alva Elisha McCoy, Alva Elisha McCoy, John Jay McCracken, Howard Orr McCracken, Wendell Kemp McCullough, Helen E McCullough, Helen E McCumer, Charles william McCune, Joseph McCray McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, May McDougle, Ward McElhiney, Florence McEvoy, Myrtle Loretta McFarland, Dan McFarland, Dan McGaughey, Guy Ennis McGere, Charles Babcock McGraw, Katherine Leslie McGrath, James McGrints, Daniel Hunt McGrints, Daniel Hunt McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacIntosh, Harold Stanton McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Josephine Pearl McKee, Oivetta C McKee, Oiveta C McKee, Oiveta C McKee, Oiveta C McKee, Oiv	McCaughey, Louis Douglass			
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MacDonald, Herbert William MacDonald, Herbert William McDougle, May McDougle, Verne Russell McElliney, Florence McEvoy, Myrtle Loretta McFarland, Dan McFarland, Dan McFarland, Ellis Dean McGaughey, Guy Ennis McGaughey, Guy Ennis McGee, Edna Amelia McGee, Edna Amelia McGinnis, Albert Henry McGorrisk, Daniel Hunt McGraw, Katherine Leslie McGraw, Charles Babcock MacHatton, Ralph Alexander MacHatton, Ralph Alexander MacInnes, Frances Jean McIntyre, George Edward McKee, Josephine Pearl McKee, Josephine Pearl McKee, Otwetta C McKeen, Joseph Moore MacKee, Ospeph Moore MacKee, Ospeph Moore MacKee, Ospeph Moore MacKee, Ospeph Moore MacMathator, Salph Alexander McKee, Ospeph Moore MacKee, Ospeph Moore MacMathator, Salph Alexander MacKee, Ospeph Moore MacKee, Ospeph Moore MacKee, Ospeph Moore MacKee, Ospeph Moore MacMathator, V. A. Salph Alexander MacKee, Ospeph Moore MacMathator, MacMa	McCune, Joseph McCray	7 1	70	
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McFarland, Dan McGaughey, Guy Ennis McGee, Edna Amelia McGee, Cra M McGinnis, Albert Henry McGrath, James McGrath, James McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacHatton, Ralph Alexander MacInnes, Frances Jean McIntyre, George Edward McIntyre, Mabel McKee, Josephine Pearl McKee, Olivetta C McKeen, Joseph Moore MacKee, Olivetta C McKeen, Joseph Moore MacMacHatton, Daniel McAllore, Mabel McKeen, Josephine Pearl McKeen, Joseph Moore MacMacHatton, One MacMacHatton McKeen, Josephine Pearl McKeen, Joseph Moore MacMacHatton, Ralph Alexander MacHatton, Ralph Alexander MacMacMacMacMacMacMacMacMacMacMacMacMacM	McDougle, May	HSAgr		Charleston
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McGhee, Ora M McGorrisk, Daniel Hunt McGrath, James McGrew, Charles Babcock MacIntosh, Harold Stanton McIntyre, George Edward McIntyre, George Edward McKay, Dea David McKee, Josephine Pearl McKee, Oilytetta C McKeon, Joseph Moore MacGorew, Charles Babcock MacIntosh, Harold Stanton McIntyre, George Edward McKee, Josephine Pearl McKee, Oilytetta C McKeon, Joseph Moore MacGorey, Charles Babcock Mac 110 Levistown Robinson Champaign Geneva Me 123 Monmouth Mc 123 Monmouth McKee, Josephine Pearl McKee, Josephine Pearl McKee, Oilytetta C McKeon, Joseph Moore ME MCKey, Oilytetta C McK	McGee, Edna Amelia	LA (SS)	743	St. Joseph
McGinnis, Albert Henry McGorrisk, Daniel Hunt McGrath, James McGrath, James McGraw, Katherine Leslie McGrew, Charles Babcock MacHatton, Ralph Alexander MacInnes, Frances Jean McIntosh, Harold Stanton McIntyre, George Edward McIntyre, Mabel McKay, Dea David McKee, Josephine Pearl McKee, Olivetta C McKeon, Joseph Moore McGoraw, Katherine Leslie LA Morrisk MacHatton, Ralph Alexander LA sp Robinson Champaign McCanton ME 106 Geneva Monmouth Newman Canton Fairbury McKee, Glivetta C McKeon, Joseph Moore ME MCGay, MacHatton MF MCAA MCF MCKeon, Joseph Moore ME MCGay, MacHatton ME MCAA MCF MCKee, Olivetta C MCKeen, Joseph Moore ME MCGay, MacHatton MCAA MCAA MCAA MCAA MCAA MCAA MCAA MCA				
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MacHatton, Ralph Alexander MacHatton, Ralph Alexander MacInnes, Frances Jean McIntosh, Harold Stanton McIntyre, George Edward McIntyre, Mabel McKay, Dea David McKee, Josephine Pearl McKee, Joseph Moore McKeon, Joseph Moore MacHatton, Ralph Alexander MacHatyre, Mabel McKee, Olivetta C McKeon, Joseph Moore MERANDER MacHatton, Ralph Alexander McKeon, Joseph Moore MacHatton, Ralph Alexander McRaph Alexander McMacHatton	McGorrisk, Damer Hunt	AL.		
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McIntyre, George Edward  McIntyre, Mabel  McKay, Dea David  McKee, Josephine Pearl  McKee, Olivetta C  McKeon, Joseph Moore  ME MCKEON, Joseph Moore	McIntosh, Harold Stanton	ME	106	
McIntyre, Mabel McKay, Dea David McKee, Josephine Pearl McKee, Olivetta C McKeon, Joseph Moore  McKeon, Joseph Moore  LA (SS) 98 Newman Canton Fairbury HSLA 67 Fairbury Buffalo, N. Y.	McInture George Edward			
McKee, Josephine Pearl McKee, Olivetta C McKee, Olivetta C McKeon, Joseph Moore  ME Buffalo, N. Y.	McInture Mahel	14 (00)		
McKeon, Joseph Moore ME Burato, N. 1.	McVey Des Derid	1 (33)	70	
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McKeon, Joseph Moore ME Burato, N. 1.	McKee, Olivetta C	HSLA	67	
McKeown, John Latimer AE 36 Chicago McKinney, Henry Theodore LA (SS) 115\frac{1}{3} Hudgens	McKeon, Joseph Moore	ME		Buffalo, N. Y.
McKinney, Henry Theodore LA (SS) 1153 Hudgens	McKeown, John Latimer		36	
	McKinney, Henry Theodore			
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McKinner Murtle	SS	2	Hudgens
McKinney, Myrtle McKnight, Joe Ben McKnight, Timothy Irl		2	III agens
McKnight, Joe Ben	Agr		Wiggins, Miss.
McKnight, Timothy Irl	L	11/2	Oblong
McLaughlin, James William	ME	100	Paris
McLean Martha	HSLA		Macomb
McLean, Martha McLean, Nicholas	FF		
McLean, Nicholas	EE	7.0	Princeton
McLean, Sarah	EE SS	8	Geneva
McLeod, George Cecil	Agr sp SS		Leakesville, Miss.
MaManus Tames P	22	173	LaSalle
McManus, James B McMaster, William McMillen, George Burr	22	1/3	
McMaster, William	L		Bellefourche, S. D.
McMillen, George Burr	BLA	36	Champaign
McMullan, Henry Evan	S (SS)	981	Relleville Mich
McMullall, Helly Lyan	3 (33)		Belleville, Mich. Highland Park
McPherson, Earle Steele	MÈ	641	riightana Park
McRobie, Douglas	Ler	14	Montclair, N. J.
McRobie, Douglas McVay, Thomas Newkirk	CerE	102	Urbana
MasVery Lillian Imagens		66	
MacVean, Lillian Imogene	LA	00	Toronto, Canada
McVeigh, Henry Hancock	Agr		Springfield
McVeigh, Henry Hancock McWethy, Daniel Valentine	BLA	67	Aurora
McWilliams, Marie Lindsey	Mus sp	٠.	Urbana
MCW Illiams, Maile Linusey			
Macis, John Kaphael	CE		New York City
Madden, Grace Ermine Madden, Helen Louise Mader, August	LA		Champaign
Madden Halon Louise	LA (SS)	351	Champaign
Maddell, Heleli Louise	LA (33)		
Mader, August	AE	40	Farmer City
Madsen, Olav Magee, Elon Charles	AE		Litchfield, Minn.
Magao Flon Charles	Agr	1261	Geneseo
Magee, Elon Charles	7.4	1202	
Magruder, Denton, Adlai	LA		Potomac
Mahn, George Willis	AE		Urbana
Mahood, Harry Samuel	CE		Mt. Carroll
Manoou, Harry Damuel	EE	7 5	
Malaise, Clayton Lee Maley, Robert Carleton Maloit, Pauline Germaine	EE	75	Serena
Maley, Robert Carleton	ME	34	Grays Lake
Maloit Pauline Germaine	TA		Elmhurst
Mander Charles Thomas	200	61	
Manley, Charles I nomas	33		Butte, Mont.
Manley, Myra Frances	LA SS SS	2	Champaign
Manley, Pearl M	HSAGT Sh	(5.5) 39	Chambaian
Manley, Pearl M	HSAgr sp (	(55) 39	Champaign Champaign
Manley, Pearl M Manley, Verna Adaline	HSAgr sp (		Champaign
Manley, Pearl M Manley, Verna Adaline Mann, Arthur Sidney	LA AE	70	Champaign Kankakee
Manley, Charles Thomas Manley, Myra Frances Manley, Pearl M Manley, Pearl M Manley, Verna Adaline Mann, Arthur Sidney Mann, Edith Melvina	LA AE		Champaign
Manley, Pearl M Manley, Verna Adaline Mann, Arthur Sidney Mann, Edith Melvina Mann Harold Abraham	HSAgr sp ( LA AE LA	70	Champaign Kankakee Kankakee
Manley, Pearl M Manley, Verna Adaline Mann, Arthur Sidney Mann, Edith Melvina Mann, Harold Abraham	HSAgr sp ( LA AE LA Agr sp	<b>70</b> 83	Champaign Kankakee Kankakee Mannville, Fla.
Mann, Harold Abraham Mann, Harold Edward	HSAgr sp ( LA AE LA Agr sp Agr	70	Champaign Kankakee Kankakkee Mannville, Fla. Rossville
Mann, Harold Abraham Mann, Harold Edward	HSAgr sp ( LA AE LA Agr sp	<b>70</b> 83	Champaign Kankakee Kankakee Mannville, Fla.
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose	HSAgr sp ( LA AE LA Agr sp Agr LA	<b>70</b> 83	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind.
Mann, Edun Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S	HSAgr sp ( LA AE LA Agr sp Agr LA Agr	70 83 97½	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford	HSAgr sp ( LA Agr sp Agr LA Agr Agr LA Agr Agr	<b>70</b> 83	Chompaign Kankakee Kankakee Mannville, Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich.
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr LA Agr REE	70 83 97½	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo.
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr LA Agr REE	70 83 97½	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo.
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford	HSAgr sp ( LA AE LA Agr sp Agr LA Agr LA Agr REE Agr	70 83 97½ 105½	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington
Mann, Edith Melvina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr	70 83 97½ 105½	Chombaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Bloomington
Mann, Edith Meivina Mann, Harold Braham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr REE Agr Agr	70 83 97½ 105½ 118 40	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford
Mann, Edith Meivina Mann, Harold Braham Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr REE Agr Agr	70 83 97½ 105½ 118 40 6¾	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr REE Agr Agr	70 83 97½ 105½ 118 40 6¾	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr REE Agr Agr Agr SSS	70 83 97½ 105½ 118 40 6½ 6½	Chambaigm Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie	HSAgr sp ( LA AE LA Agr sp Agr Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr SS SS SS EE	70 83 97½ 105½ 118 40 6½ 110½	Champaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Serena
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Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie	HSAgr sp ( LA AE LA Agr sp Agr sp Agr Agr Agr Agr Agr Agr Agr Agr EE Agr Agr SS	70 83 97½ 105½ 118 40 6½ 6½ 110½ 6	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel, Ky.
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie	HSAgr sp ( LA AE LA Agr sp Agr	70 83 97½ 105½ 118 40 6½ 6½ 110½ 17	Chambaigm Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City
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Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clay Carrie	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 6½ 110½ 17	Chambaigm Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham
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Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clay Carrie	HSAgr sp ( LA AE LA Agr sp Agr	70 83 97½ 105½ 118 40 6½ 6½ 110½ 17	Chambaigm Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clay Carrie	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 110½ 17	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clay Carrie	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 110½ 17	Chambaigm Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clay Carrie	HSAgr sp ( LA AE LA Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 110½ 17	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, James Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clive C Martin, Esther Evelyn Martin, Fay Waldo Martin, Joe Neely Martin, Robert Sackett	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	70 83 97½ 105½ 118 40 6½ 6½ 110½ 17 22 25	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Biloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago
Mann, Edith Meivina Mann, Harold Edward Marnhestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markmell, Olen Crow Marquis, Du Bois Marquis Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, James Ward Marshall, Flank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Clive C Martin, Earl Rav Martin, Esther Evelyn Martin, Joe Neely Martin, Joe Neely Martin, Robert Sackett Marx, Frederick August Kuhs	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 61 17 22 25 8	Chambaign Kankakee Kankakee Mannville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo.
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, James Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clive C Martin, Esther Evelyn Martin, Fay Waldo Martin, Joe Neely Martin, Robert Sackett	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	70 83 97½ 105½ 118 40 6½ 6½ 110½ 17 22 25	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Biloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago
Mann, Edith Meivina Mann, Harold Abraham Mann, Harold Edward Marblestone, Rose Marikey, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Frank Edward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Clave C Martin, Esther Evelyn Martin, Esther Evelyn Martin, Fay Waldo Martin, Foe Neely Martin, Robert Sackett Marx., Frederick August Kuhs Masel, Max	HSAgr sp ( LA AE LA Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 61 17 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullican Chicago St. Louis, Mo. Alton
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, James Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Clive C Martin, Earl Rav Martin, Esther Evelyn Martin, Fay Waldo Martin, Joe Neely Martin, Robert Sackett Marx, Frederick August Kuhs Massel, Max Mason, Arthur Helgeson	HSAgr sp ( LA AE LA Agr sp Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	70 83 97½ 105½ 118 40 6½ 6½ 110½ 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Serena Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo. Alton Urbana
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Marikey, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Fames Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clave C Martin, Esther Evelyn Martin, Esther Evelyn Martin, Fay Waldo Martin, Robert Sackett Marx, Frederick August Kuhs Mason, Arthur Helgeson Mason, Rose Seguine	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	70 83 97½ 105½ 118 40 6½ 110½ 17 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo. Alton Urbana Buda
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Marikey, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Fames Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clave C Martin, Esther Evelyn Martin, Esther Evelyn Martin, Fay Waldo Martin, Robert Sackett Marx, Frederick August Kuhs Mason, Arthur Helgeson Mason, Rose Seguine	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 6½ 110½ 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Biloomington Milford St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo. Alton Urbana Buda Frankfort, Ind.
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Marikey, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, Frank Edward Marshall, Fames Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Claude J Martin, Clave C Martin, Esther Evelyn Martin, Esther Evelyn Martin, Fay Waldo Martin, Robert Sackett Marx, Frederick August Kuhs Mason, Arthur Helgeson Mason, Rose Seguine	HSAgr sp ( LA AE LA Agr sp Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	70 83 97½ 105½ 118 40 6½ 110½ 17 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids. Mich. St. Louis, Mo. Stonington Bloomington Milford St. Joseph St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo. Alton Urbana Buda
Mann, Edith Meivina Mann, Harold Edward Mann, Harold Edward Marblestone, Rose Maris, Ward S Markley, Leland Stanford Markmann, Carl Bennett Markwell, Olen Crow Marquis, Du Bois Marquis, Leo Daniel Marsh, Ethel Carrie Marsh, Nellie May Marshall, Frank Edward Marshall, James Ward Marshall, Ralph William Marshall, Robert Haskell Martin, Claude J Martin, Clive C Martin, Earl Rav Martin, Esther Evelyn Martin, Fay Waldo Martin, Joe Neely Martin, Robert Sackett Marx, Frederick August Kuhs Massel, Max Mason, Arthur Helgeson	HSAgr sp ( LA AE LA Agr sp Agr sp Agr	70 83 97½ 105½ 118 40 6½ 110½ 17 22 25 8	Chambaign Kankakee Kankakee Mannville, Fla. Rossville Bicknell, Ind. Tuscola Grand Rapids, Mich. St. Louis, Mo. Stonington Biloomington Milford St. Joseph St. Joseph Sercna Chicago West Chicago Gamaliel. Ky. Mason City Latham Prophetstown Bridgeport Mt. Carmel Sullivan Chicago St. Louis, Mo. Alton Urbana Buda Frankfort, Ind.

Mathers, Aaron	BLA	60	Laura
Mathers, Andrew Tackson	Agr	30	Laura
Mathers, Andrew Jackson Mathers, Leslie Eugene	Agr		
Mathers, Lesite Eugene	Ayr	1142	Momence
Mathers, Manley Bonham Mathes, Georgia	Agr (SS) SS EE	102	Momence
Mathes, Georgia	SS	6	Charleston
Mathews, Howard Mathews, William B Matteson, Glenn Harlow	FF	111	Yates City
Mothews William D	5 (55)		
Mathews, William D	3 (33)	651	Yates City
Matteson, Glenn Harlow	Agr	32 <del>1</del>	Fairfield
Mattingly, Leo Joseph Mattingly, William Brasher Mattis, Ida Levering Mattis, Mary Katherine, A.B. (Smith	AE		Champaign
Mattingly William Brasher	Agr	641	Cairo
Mattingly, I main brusher	34		
Mattis, Ida Levering	Mus sp	39	Champaign
Mattis, Mary Katherine, A.B. (Smith			
	Mus		Champaign
Matticon John Dwight	CE	37	
Matterson, John Dwight	367		Oregon
Mattison, John Dwight Mattoon, Edwin Whitaker Maury, Charles Fontaine Maury, John Alvan Maury, Thomas Edward Mavity, Maurine Mavor, Hugh Nelson Maywell Havald Dillon	Md	33	Champaign
Maury, Charles Fontaine	$\boldsymbol{A}$	130	Houston, Tex.
Maury, John Alvan	EE	108	
Moury Thomas Edward	ME		
Madiy, Inomas Edward		75	Rossville
Mavity, Maurine	HSLA		Valparaiso, Ind.
Mayor, Hugh Nelson	AE		LaGrange
Maxwell, Harold Dillon	LA		Urbana
Man Clifford Dising			
May, Clinord Blaine	Agr		Kirkland
May, Clifford Blaine May, Eric Oscar	SS EE	8	Newton
Mayes, George William	EE	108	Champaign
Mealiff, Arthur Edward	Agr	200	Chicago
Manan Taman TTaman			
Measer, James Henry Meek, Charles Thaddeus Meek, Wilbur Mehl, Wallace Willis	EE	64	Fairmount
Meek, Charles Thaddeus	Agr	103	Carrollton
Meek, Wilhur	LA		Carrollton
Mehl Wallace Willie	L	58	
Mein, wanace willis	L C C	28	Goshen, Ind.
Meisenhelder, Benjamin	EE		Palestine
Melcher, Woodbury Ranlet Melin, George Edgar Meltz, Nathan	Agr	26	Hinsdale
Melin George Edgar	Agr		Moline
Molta Nother			
Michie, Nathan	Agr sp		Ekaterinoslaw, Russia
Meneley, Olive Myrtle Mengel, George Henry Menke, Arnold Edward Menke, Harry George	Mus		Champaign
Mengel, George Henry	ChE (SS)	871	Moline
Menke, Arnold Edward	S	26	Evansville, Ind.
Montro Horry Coorgo	RCE		
Melike, Harry George		75	Quincy
Mercer, Walter Witchell Mercey, Raymond John	L	57	Vermont
Mercey, Raymond John	Md		St. David
		51	Perry
Meredith Ina Valeria			
Meredith, Ina Valeria	S		Dagudatan
Meredith, Ina Valeria Merrill, Thompson Arlene	BLA	99	Beardstown
Mercdith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight	BLA Md (SS)	99 27	Beardstown Chicago
Mercdith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight	BLA Md (SS)	99 27	Beardstown Chicago
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur	BLA Md (SS)	99 27 95	Beardstown Chicago Robinson
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz. Carl Altreld	BLA Md (SS) S CE	99 27	Beardstown Chicago Robinson Tolono
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz. Carl Altreld	BLA Md (SS) S CE BLA	99 27 95 36	Beardstown Chicago Robinson Tolono Cairo
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler. Arthur Maurice	BLA Md (SS) S CE BLA BLA	99 27 95	Beardstown Chicago Robinson Tolono
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon	BLA Md (SS) S CE BLA BLA	99 27 95 36	Beardstown Chicago Robinson Tolono Cairo Champaign
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon	BLA Md (SS) S CE BLA BLA ME	99 27 95 36	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore	BLA Md (SS) S CE BLA BLA ME A	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore	BLA Md (SS) S CE BLA BLA ME A ME	99 27 95 36	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William	BLA Md (SS) S CE BLA BLA ME A	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William	BLA Md (SS) S CE BLA BLA ME A ME A sp	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia.
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad	BLA Md (SS) S CE BLA BLA ME A ME A sp ME	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind.
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard	BLA Md (SS) SCE BLA BLA ME A ME A sp ME A gr	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind.
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael. Ethel Otille Sophia	BLA Md (SS) S CE BLA BLA ME A ME A sp ME A agr ME	99 27 95 36 31 30 90	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign
Meredith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael. Ethel Otille Sophia	BLA Md (SS) S CE BLA ME A ME A sp ME Agr Mus Mus	99 27 95 36 31 30	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind.
Meredith, Ina Valeria Merrili, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Aligeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold	BLA Md (SS) S CE BLA ME A ME A sp ME Agr Mus Mus	99 27 95 36 31 30 90 21	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Middleton, Walter Stanley	BLA Md (SS) S CE BLA BLA ME A A ME A sp ME A gor Mus Mus ME (SS)	99 27 95 36 31 30 90 21 81 107	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Assumption
Merrill, Thompson Arlene Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton	BLA Md (SS) S CE BLA BLA BLA A A A A A S ME A A A A A A A A A A A A A A A A A A	99 27 95 36 31 30 90 21	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind.
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler. Erich Carl	BLA Md (SS) S CE BLA BLA ME A A ME Agr ME Mgr Mus ME ME (SS) Agr sp S	99 27 95 36 31 30 90 21 81 107 52	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Assumption Burney, Ind. Crete
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler. Erich Carl	BLA Md (SS) S CE BLA BLA BLA A A A A A S ME A A A A A A A A A A A A A A A A A A	99 27 95 36 31 30 90 21 81 107	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind.
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler. Erich Carl	BLA Md (SS) S CE BLA BLA ME A ME A sp ME Mus Mus ME (SS) Agr sp S HSLA	99 27 95 36 31 30 90 21 81 107 52	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Chianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan.
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler. Erich Carl	BLA Md (SS) S CE BLA BLA ME A ME A sp ME Agr ME S GE ME (SS) Agr S HSLA Agr	99 27 95 36 31 30 90 21 81 107 52 23 604	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Joseph Porter Miles, Joseph Porter Miles, Luther Fiske	BLA Md (SS) S CE BLA BLA ME A ME A A sp ME Agr Mus ME (SS) Agr sp S HSLA Agr (SS)	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Joseph Porter Miles, Joseph Porter Miles, Luther Fiske	BLA Md (SS) S CE BLA BLA BLA ME A ME Asp ME Agr ME S HSLA Agr (SS) Agr (SS) Agr Agr Agr	99 27 95 36 31 30 90 21 81 107 52 23 604	Bcardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown Urbana Gorden City, Kan.
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Joseph Porter Miles, Joseph Porter Miles, Luther Fiske	BLA Md (SS) S CE BLA BLA ME A ME A sp ME Agr Mus ME ME (SS) Agr Sp SS HSLA Agr Agr (SS) HSAAgr	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Bcardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown Urbana Gorden City, Kan.
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Joseph Porter Miles, Joseph Porter Miles, Luther Fiske	BLA Md (SS) S CE BLA BLA ME A ME A sp ME Agr Mus ME ME (SS) Agr Sp SS HSLA Agr Agr (SS) HSAAgr	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown Urbana Garden City, Kan. Urbana
Merrill, Thompson Arlene Merrill, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Eunice Miles, Joseph Porter Miles, Luther Fiske Miles, May Mills, Ruth Columbia Mill, Robert Charles	BLA Md (SS) S CE BLA BLA BLA ME A A sp ME Agr Mus ME (SS) Agr sp S HSLA Agr KS HSLA Agr LA S HSLA Agr S HSLA	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Cete Garden City, Kan. Lewistown Urbana Garden City, Kan. Urbana Garden City, Kan. Decalur
Mereith, Ina Valeria Merrili, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Eunice Miles, Luther Fiske Miles, May Miles, Ruth Columbia Mill, Robert Charles Millar, Russell Ward	BLA Md (SS) S CE BLA BLA BLA ME A ME Asp ME ME Agr ME S S HSLA Agr (SS) Agr (SS) HSLA Agr LA SS Ch	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown Urbana Garden City, Kan. Urbana Garden City, Kan. Urbana Deatur Mattoon
Mereith, Ina Valeria Merrill, Thompson Arlene Mershimer, James Dwight Messerve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Joseph Porter Miles, Joseph Porter Miles, Luther Fiske Miles, May Miles, Ruth Columbia Mill, Robert Charles Millar, Russell Ward Miller, Arthur Clair	BLA Md (SS) S CE BLA BLA ME A ME A ME MG MS ME A MS	99 27 95 36 31 30 90 21 81 107 52 23 60 1 5 6	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Cete Garden City, Kan. Lewistown Urbana Garden City, Kan. Urbana Garden City, Kan. Decalur
Mereith, Ina Valeria Merrili, Thompson Arlene Mershimer, James Dwight Meserve, Theodore Decatur Metz, Carl Altgeld Metzger, LeRoy Paul Metzler, Arthur Maurice Metzler, Curtis Vernon Meyer, Carl Theodore Meyer, George, Jr. Meyer, George William Meyer, Orval Conrad Meyers, Paul Lillard Michael, Ethel Otille Sophia Michael, Wilbur Harold Middleton, Walter Stanley Miers, Roy Hamilton Miessler, Erich Carl Miles, Eunice Miles, Luther Fiske Miles, May Miles, Ruth Columbia Mill, Robert Charles Millar, Russell Ward	BLA Md (SS) S CE BLA BLA BLA ME A ME Asp ME ME Agr ME S S HSLA Agr (SS) Agr (SS) HSLA Agr LA SS Ch	99 27 95 36 31 30 90 21 81 107 52 23 601 5	Beardstown Chicago Robinson Tolono Cairo Champaign Strasburg Springfield Chicago Davenport, Ia. Vincennes, Ind. Indianapolis, Ind. Champaign Chicago Assumption Burney, Ind. Crete Garden City, Kan. Lewistown Urbana Garden City, Kan. Urbana Garden City, Kan. Urbana Deatur Mattoon

Miller, Chester B, A.B., 1907	SS		Champaign
Miller, Clayton Allen	EE	83	Tiffin, Ohio
Miller, Clyde Albert Miller, Clyde Lindley Miller, Daniel Edwin Miller, Elliott Strong Miller, Erwin Franklin	EE	25\$	Sunbury, Pa.
Miller, Clyde Lindley	ME		Urbana
Miller Daniel Edwin	ME	7	Quincy
Miller Flligtt Strong	BLA	•	Öak Park
Miller English English		16	
Miller, Erwin Franklin	A	10	Onaga, Kan.
Miller, Eunice Blanche	Mus sp		Winamac, Ind.
Miller, Fred Raney Miller, Jessie Fay	LA		Gilman
Miller, Jessie Fay	LA	103	Gilman
Miller, John starold	EE	36	Oak Park
Miller, Joseph Harrison	CE	36	Red Oak
Muer Lew Stevenson	Agr sp	30	Alexis
Miller Mahel Lucile A R 1012	SS	50	Urbana
Miller Manuel Euclie, 11.D., 1912	A	76	
Miller, John darold Miller, Joseph Harrison Miller, Lew Stevenson Miller, Mabel Lucile, A.B., 1912 Miller, Marcus Gilbert	7. A	10	Girard, Ohio
	LA	66	Atlanta
Miller, Ora Lucile Miller, Thomas Winfrey Miller, Welby West Miller, William Pitt, B.S., 1901	HSLA	52	Atlanta
Miller, Thomas Winfrey	EE	52	Springfield, Mo.
Miller, Welby West	BLA	98	Urbana
Miller, William Pitt, B.S., 1901	Agr		Bloomington
Millizen, Edna Varner	Mus	25	Champaign
Milla Charles P	SS	131	Buckley
Mills, Charles R Mills, Fred Leon	7 1	123	O-t D-ut
Mills, Fred Leon	LA		Oak Park
Mills, John Turner	Agr		McNabb
Milne, Agnes Mabel	HSS	26	Lockport
Milne, Agnes Mabel Milne, Minnie Isabel Minard, Barbara Winefred Minchin. Sidney Henry	HSS (SS)	26 52	Lockport
Minard, Barbara Winefred	LA	30	Blue Island
Minchin Sidney Henry	A	403	Chicago
Miner Harry Fugene	BLA	102	Watseka
Miner, Harry Eugene	Agr	251	III an and a
Miner, Henry Miner, Lester Ward Miner, William		403	Waverly
Miner, Lester Ward	Agr	60 50½	Shelbyville
Miner, William	SS		
Minnis, Lemuel Ernest	Agr		Chicago
Minor, Loval Leonard	Agr	130 101 168½ 15	Aledo
Merick, Harry Rugee Misner, Francis de Sales	BLA	101	Chicago
Misner Francis de Sales	EE	1687	Peoria
Mitchell, Elsie Louise	HSAgr	15	Havana
	SS	15 32½	Urbana
Mitchell, Florence Ferne	33		
Mitchell, Grace	LA	70	Urbana _
Mitchell, Grace Mitchell, Grace Mitchell, Grover Ira Mitchell, Helen Mitchell, Janet Mitchell, Joe Orlando Mitchell, Lionel Earl Mitchell, Marguerite, A.B. (Wilmington, Col.) 1910	ME	79	Cornell
Mitchell, Helen	LA	65	Urbana
Mitchell, Tanet	HSLA	691	Chicago
Mitchell, Toe Orlando	A(SS)	1091	Champaign
Mitchell Lionel Earl	Md	31	Chicago
Mitchell Marguerite A B (Wilming.			Omrago
ton Coll.) 1910	Lb	33	Wilmington, O.
1011 0011.) 1710	MnE	75	
Mitchell, Ruffin Edward Mitchell, William Leland		15	Carbondale
Mitchell, William Leland	Md		E. St. Louis
Mix, Martin Ira	ME	126	Chicago
Mize, Robert Charles	L	86	Santa Ana, Calif.
Mizoguchi, Gundayu	EE	69	Saga, Japan
Moh, Hsiang-Yueh	Agr (SS)	1107	Shanghai, China
Mohlman, Harry	S		Urbana
Make Alba Agence	LA (SS)	25	
Mohr, Alba Agnes	CE (33)	82	Beardstown
Moir, Robert Burrill Molt, Margaret Ellen	CE		Chicago
Molt, Margaret Ellen	LA EE (SS)	65	Clinton, Ia.
Monteiro, Joao Plinio de Barros	EE (55)	73	So. Paulo, Brazil
Moon, Gladys	LA		LeRoy
Mooney, Raymond	EE		Chicago
Mooney, Raymond Moore, Harry Clay	L	67	Mattoon Chicago
Moore, Herbert Jackson	Agr	411	Chicago
Moore Marlin Clarkson	Agr	92	Chicago
Moore, Herbert Jackson Moore, Marlin Clarkson Moore, Mary Rebecca, A.B., 1911	Mus	132	
Moore, Mary Renecca, A.B., 1911		22	Tolono
Moore, Richard Jacob	Agr sp	23	Griggsville
Moore, Ruby Frances	LA SS	162	Cievelana, miss.
Moore, Sidney Samuel	22	8	Galva
ration of Drawer,			

Moore, Stanley Jewell	SS	8	Cincinnati, O.
Moore, William Abner	LA		Urbans
Morehead, Herbert Leslie	A		Cedar Rapids, Ia.
Moreland, Oscar Everette	Agr		Indianola
Moreiand, Oscar Everence	Morat		
Morey, Laura Myla	Mus sp		Vandalia
Morgan, Charles Leonard	A	118 <del>1</del>	Urbana
Morgan, Chester Arthur	MnE	34	Virden
Morgan, Edith Marian, A.B. (Univ.			
Minnesota) 1909	Lb		St. Cloud, Minn.
Morgan Cross Person	LA	66	Urbana
Morgan, Grace Busey			
Morgan, Harry Edward	L	56	Belleville
Morgan, John William	SS	104 2-3	Clayton
Morgan, John William Morgan, Ralph Waldo Morgan, Rudolph Bennett Morgan, Thomas Sherman	ChE		Macomb
Morgan Rudolph Rennett	SS	71	Alpha
Morgan Thomas Sharman	LA	, 2	E. St. Louis
Morgan, Inomas Sherman	C		Daniella
Morin, Oswell	S		Danville
Morray, Kenneth Ralph Morrell, Ralph Leonard Morris, Alice Elvira	Agr sp		Vienna
Morrell, Ralph Leonard	CE	56	Chicago
Morris, Alice Elvira	S (SS)	1101	Viola
Morris, Arthur Marvin	L	58	Oskaloosa, Ia.
Manie Transla Devices		20	Tonica
Morris, Harold Bayley	Agr sp		
Morris, Leland Albert	$L_{\perp}$	23	Cartersville, S. C.
Morris, Leland Albert Morris, Roy Edward	EE	36	Dwight
Morris, Vernon Leslie	AE	36	Congress Park
Morrison, Donald Kenneth	S	54	Champaign
Marrison, Holan Cinclair	HSAgr	37 <del>1</del>	
Morrison, Helen Sinclair Morrison, William Raymond Morrissey, Edward Henry			Joliet
Morrison, William Raymond	L	54	Waterloo
Morrissey, Edward Henry	LA (SS)	54 <del>1</del>	Champaign
Morrissey, John Johnson	Agr sp		Princeville
Morrissey Matthew Joseph Tr	MnE	54	Chicago
Morrow Arnold Vision	ME	34	White Hall
Morrissey, John Johnson Morrissey, Matthew Joseph, Jr. Morrow, Arnold Vivian			
	LA	65	Urbana
Morton, Henry Augustine	Agr		Canton
Morton, Henry Augustine Moser, Olga Fern Moses, Robert Louis	Mus	110	Sigel
Moses, Robert Louis	Agr		Chicago
Mosher, James Barnes Mosier, Leota Irene Moss, Gladys Ione			Prophetstown
Masier Facto Tanne	Agr HSLA		
Mosier, Leota Trene	HOLA		Urbana
Moss, Gladys Ione	HSLA	30	Chicago
Mostollar, Harvey Gove Mottern, Halbert Nicholas Mottern, Layton Robert Mottier, Julia Louise Mouch, William George	Agr	25	Bloomington
Mottern, Halbert Nicholas	A	33	Russellville, Ind.
Mottern Layton Robert	BLA		Russellville, Ind.
Mottern, Layton Robert	HSLA		Gibson City
Mottler, Julia Louise		0.3	
Motich, William George	CerE	23	Milford
Moulton, Henry Harper	S	241	Glen Ellyn Glen Ellyn
Moulton, Wesley Hillman	S	12	Glen Ellyn
Moulton, Henry Harper Moulton, Wesley Hillman Mounts, Maryon Evelyn	LA	103	Carlinville
Mounts, Will Walter	ME	18	Carlinville
Managina Davi Water	LA sp	22	Rushville
Mourning, Paul Wetzel Moutray, Mary Elizabeth Moutray, Madeleine			
Moutray, Mary Elizabeth	Mus	35	Urbana
Moutray, Madeleine	LA	31	Urbana
Muckelrov, Renzo	SS	32 <del>1</del>	Carbondale
Muckerroy, Renzo Mueller, Harrie Stevens Mueller, Harry Louis Mueller, Henry Fred Mueller, Henry Fred	Agr	721	Wichita, Ken.
Mueller Harry Louis	Ch	2	Highland
Mareller Harry Louis	BLA		CA Tania Ma
Mueller, Henry Fred			St. Louis, Mo.
Muchel, Helbert Zoller	EE		Quincy
Mulac, Louis Edward	ME		Chicago
Mulfinger, Carl Wesley Mullen, Clarence Clement Mullens, Edward Richard	L	81	Chicago
Mullen, Clarence Clement	EE		Savanna
Mullens Edward Richard	AE		Champaign
Muluonov Charles Charact		011	
Mulvaney, Charles Stewart	CE	811	Chicago
Munroe, Courtland Leroy	ChE	150	River Forest
Murdock, James Oliver	LA		San Antonio, Tex.
Murdock, James Oliver Murdock, Paul Willard	A	35	San Antonio, Tex.
Murduck, Elizabeth Adams	Mus	21	Champaign
Murphy Everett Franklin	Agr		Marshall
Murduck, Elizabeth Adams Murphy, Everett Franklin Murphy, Howard Dawson			
murphy, Howard Dawson	Agr		Chicago

Murphy, Joseph Ivan Murphy, Kendall Tuttle Murphy, Leo Thomas	S CE	64	Urbana, Ohio
Marchy Kondoll Tuttle	CE	1051	
Mulphy, Kendan Tuttle		1033	Sterling
Murphy, Leo Thomas	Agr		Sullivan
Murphy, Mary Agnes	Mus	74	Sullivan
Marphy, Mary Mights			
Murr, Milton	CE	75	Chicago
Murray, Forrest Hamilton	S	741	Mason
Murray Occar Tames	BLA		Chicago
Murray, Oscar James Myers, Arthur Leslie		400	
Myers, Arthur Leslie	ME (SS)	108	Harvey
Myers, Charles Everett	S (SS)	105 <del>1</del>	Huntington, W. Va.
Marie Tarak William A D 1011	7 (00)		
Myers, Jacob Wimam, A.B., 1911 Myers, Lena Josephine Myers, Nina Claire	L LA	43	Harrisburg
Myers, Lena Josephine	LA	115	Urbana
Myere Nina Claire	LA	32	Urbana
Myers, Ivilla Claric	La		
Myers, Odessa Madge	LA	71	Mansfield
Myers Rachel Flossie	S	37 1/2	Huntington, W. Va.
Muone Walde Day	BLA	0.2	Mansfield
Myers, Odessa Madge Myers, Rachel Flossie Myers, Waldo Ray Nagel, Marcella Elizabeth Adalaide			
Nagel, Marcella Elizabeth Adalaide	HSAgr	64	Terre Haute, Ind.
Nakada, Kyoichi	EE sp		Okayamaken, Japan
Malana Mali	EE SP		
Nakayama, Moki Nance, Wiley Finney	EE		Kochi, Japan
Nance, Wiley Finney	EE		Urbana
Naprstek, Frank Joseph	AE	101	Chicago
Tapistek, I talik Joseph			
Nathan, Myer Oscar	A	138	Boone, Iowa
Nay, Ernest Omar	Md		Marshall
Nebel, Clarence Arthur Nebel, Dora Myrtle	Agr LA (SS)	341	
Nebel, Clarence Althur	7191		
Nebel, Dora Myrtle	LA (SS)	90	Urbana
Nebel, Merle Louis	MnE	111	Urbana
Mandham Minnin Lucita	LICT A		
Neednam, Minnie Lucile	HOLA	30	Urbana
Needham. Minnie Lucile Needler. Helen Montgomery	HSLA HSAgr	64	Chicago
Neely, Bertha	LA	26	Marion
No. 1 T. 1 T. 1			
Neely, John Lynde Neill, Alma Jessie	Agr	$119\frac{1}{2}$	
Neill, Alma Jessie	S	88	Chillicothe
Nelson, Adorph Lincoln	ME	12	Galesburg
N-1 A M		25	
Nelson, Anna M	SS		Knoxville
Nelson, Anna M Nelson, Carl Ferdinand	Md		Rockford
Nelson, Carl Ray	ME (SS)	71	Gothenburg, Sweden
Malan Classes Onines	AE	, -	
Nelson, Clarence Quincy	AL		Albia, Iowa
Nelson, Daisy	HSS		Canton
Nelson, Elmer George	Md		Menominee, Mich.
Malan Lan William		0.1	
Nelson, Leon Willred	Agr	91	Knoxville
Nelson, Leon Wilfred Nelson, Milton N	LA	33	Chicago
Nelson, Myrtle Pauline	HSLA		Moline
M. I. D. C.		01	
Nelson, Peter Swan	ME	91	DeKalb
Nelson, Ralph Augustus	ChE	49	Chicago
Nelson, Ralph Augustus Nelson, Roslyn Bertha	LA		Urbana
Nelson, Roslyn Dertha			
Nelson, Walter Stephen	EE	33	Chicago
Nesbitt, Herman Bayless	Agr	28	New Richmond, Ind.
Neslage, Oliver John Netcott, Roland Earl	ME		
resiage, Oliver John			St. Louis, Mo.
Netcott, Roland Earl	AE		Independence, Ia.
Neuhalten, Mathias	AE	581	Grand Island, Nebr.
Nouling Horse John		29	Ellis Grove
Neulling, marry John	LA (SS)		
Neville, Florence Edith	LA	29	Kewanee
Neuling, Harry John Neville, Florence Edith Nevins, Arthur Seymour	LA (SS)	116	Champaign
Name Tanana	1== (55)		
New, Tsunyoong	Agr (SS)	52	Ningpo, China
Newburn, Naomi Olive	HSLA	68	Urbana
Newburn, Naomi Olive Newcomb. John Elijah	SS BLA	11	Gibson City
Namell Casana Anthon To	DT A	573	
Newell, George Arthur, Jr.	DLA	57	Medina, N. Y.
Newell, Moses Elmer	SS	9	Hersman
Newenham, Raymond Newkirk, Madge Wilmot	L		Girard
Newleigle Madge Wilmet	HSLA		
Newkirk, Madge Wilmot		0.0	Chrisman
Newman, Fanny	LA	93	Indianapolis, Ind.
Newman, Fred Allen	Agr sb		Wayne City
Nowman Margaret Inne	Agr sp SS		
Newman, Margaret Jane			Charleston
	33		
Newton, Leonard Victor	MnE	111	Chicago
Newman, Fred Allen Newman, Margaret Jane Newton, Leonard Victor Nicholls, Cecil Richard	MnE	111	Chicago
Nicholls, Cecil Richard	MnE Agr sp	111	Chicago Stark
Nicholls, Cecil Richard Nichols, Floris Wilson	MnE Agr sp BLA		Chicago Stark Wenona
Nicholls, Cecil Richard Nichols, Floris Wilson Nichols, Herbert Sigourney Nichols, James Lawrence	MnE Agr sp	111 52½ 100	Chicago Stark

Nichols, Ralph Uline Nichols, Walter Lester	AE	112	Elgin
Nichols, Walter Lester	CE		St. Louis, Mo.
Nickelsen John Minert	ME	36 74 <del>1</del>	Mediapolis, Ia.
Nickelsen, John Minert Nickerson, Avon Joshua	BLA		
Nickerson, Avon Joshua		30	Champaign
Nicol, Charles Wheeler	$A_{\perp}$		W. Lafayette, Ind.
Nilsen, Peter Jacob	EE	26	Arindal, Norway
Nip, Fugar	ME		Chicago
Niver, Margaret Niver, Roe	SS	60	Muscatine, Ia.
Niver Roe	Agr	37	N. Fairfield, O.
Nixon, M L Nixon, Robert Henry, Jr. Nobis, Carl Joseph Noble, Joseph Morgan Noe, George Noel, Claude Forrester		31	Manufact Tud
Nissan Dahast Hanny To	Agr		Newport, Ind. Newport, Ind.
Nixon, Robert Henry, Jr.	Agr		Newport, Ind.
Nobis, Carl Joseph	Agr sp		Amelia, O.
Noble, Joseph Morgan	BLA	39	Wichita. Kans.
Noe. George	Agr sp		Sharon, Wis.
Noel Claude Forrester	LA	5	Lake Bluff
Notan Albert Tosenh		,	
	LA		Harvard
Nolte, John Elbert Noon, James Arthur Noon, John Eliot	BLA	34	Pekin
Noon, James Arthur	S (SS)	911	Everett, Mass.
Noon, John Eliot	LA	73	Everett, Mass.
Noonan, Will Joseph	ME	73 17	Decatur
Nonhama Engal- Come A D (411	1/1 12	11	Decuiur
Norbury, Frank Garm, A.B. (Albion Coll.) 1912			
Coll.) 1912	SS LA	8	Springfield
	LA		Anaheim, Calif.
Nordstedt, Einar August	EE	33	Joliet
Norlin Fred Christian Is	CE	6	Chicago
Manie Waster Vester	EE CE CE		
Nordatedt, Einer Marie Nordstedt, Einar August Norlin, Fred Christian, Jr. Norris, Wesley Kayler North, Clyde James North, Page Lane Noth, Edwin Francis Novden Gladys Losise	CE	37	Chicago
North, Clyde James	Agr		Winchester
North, Page Lane	EE		Mattoon
Noth Edwin Francis	A	82	Davenport, Ia.
Nowlen, Gladys Louise	HSS	02	Morrison
		- 11	
Nowlen, Proctor Albert	Agr	56½	Morrison
Nowlen, Proctor Albert Noxon, Elmer Warner	ME		St. Louis, Mo.
Nugent, Walter Allyn	CE		Brocton
Nutt. George Sinclair	Ch	97	Kankakee
Nutt, George Sinclair Nye, Linn Jones	Agr	20	Harristown
Oll Coll Coll	Ayı	20	numisiown
Oaks, Catherine Susan, A.B. (Will-			
iam Smith Coll.) 1912, B.L.S.,			
1912	Mus		Geneva, N. Y.
Oaks, Margaret Ray	HSS		Kirkwood
Oathout, Claude Leslie	Agr	113	Cissna Park
O'D' D'	S		
O'Brien, Raymond John	2	31	Ivesdale
O'Brien, Walter Lawrence O'Connor, Charles Andrew	SS	8	Maple Park
O'Connor, Charles Andrew	L	91	DeKalb
Odell, Arthur Allen	AE (SS)	32	Holton, Mich.
O'Donnell Hugh Francis	Agr	201	Chicago
O'Donnell, Hugh Francis O'Donnell, Louise Lauretta	LIC Age	202	
O Donnell, Louise Lauretta	HSAgr		Galesburg
O'Donnell, Thomas Edward Oehmke, Martin Frederick Ogden, Philip Langworthy	A	152	Olney
Oehmke, Martin Frederick	L	56	Gifford
Ogden, Philip Langworthy	EE (SS)	110	Tiskilwa
Ogg, Robert Rennie	ME		Buffalo, N. Y.
	BLA (SS)	110	Belleville
Ogle, Arthur Hook	DLA (33)		
Ogle, Charles Robert Olds, Grover Edwin	ME	118	Belleville
Olds, Grover Edwin	Agr sp	10	Chicago
Olesen, Marie Georgine	LA	10	Chicago
Olin, Irene Balfour	LA	37	Evanston
Olsen, Anna Margaret	55	25	Chicago
Olsens Harry Christian		25	
Olseng, Harry Christian Olson, Agnes Mildred Olson, Robert Harold	Agr	35 57	Chicago
Olson, Agnes Mildred	HSLA	57	Galesburg
Olson, Robert Harold	AE	32	Chicago
Olsson, Thomas Carl	Agr sp		Chicago
O'Meara Tames Toceah	CE	6	Chicago
O'Meara, James Joseph O'Neill, William George		0	
O Welli, William George	AE		Faribault, Minn.
O'Neill, William George Orcutt, Arthur Henry	Agr	921	Arcola
Ordonez, Benito Rene, Jr.	ME (SS)	1061	Saltillo, Mex.
Orland, Frank Addison			
	EE	-	Murphysboro
Ormsby, Lelia Mae		56	

Orr, Clarence	LA		Auburn
Orr Harold Vaughn	EE	73	Covington, Ky.
On Man Eliabeth	LA	67	Dahin
Orr, Harold Vaughn Orr, Mary Elizabeth Ort, Emma F		07	Pekin
Ort, Emma F	HSS		Wahoo, Nebr.
Osborne, Pauline Theodora Osborne, Reuel Osmena, Mariano y Uriarte Oswalt, Alonzo Benjamin	LA	48	Champaign
Ochorne Peuel	LA		Wilmington
Osborne, Reuci		105	Cl D T
Osmena, Mariano y Uriarte	CE	105	Cebu, P. I.
Oswalt, Alonzo Benjamin	BLA	15	Anderson, Ind.
Ott, David Lee	ME		Prophetstown
Out, David Lee			
Ottinger, Tracy Rollin Ottman, Harley Paris Otwell, Ralph B	LA		Delta, Ohio
Ottman, Harley Paris	Agr	88 <del>1</del>	Chicago
Otwell Ralph R	Agr	473	Carlinville
O TT Clin	119'	1 / 2	00.11.1101110
Ou, Hua Ching,			a . a
A.B., 1906, B.S., 1911, M.S., 1912 Ousley, Harold Paul	SS		Canton, China
Ousley, Harold Paul	BLA	62	Paris
Ousiey, Harold Laul	ME		
Overmeier, Emmons		110	Mt. Auburn
Owen, Charles Norton	ME		Chicago
Owen, Charles Norton Owen, Harry Lea Owens, Cassius Marcellus Owens, Raymond Williams Oyler, James Loyd Pack, Margaret Pacin, Loba Beitner	AĒ		Plano
Owens Cassina Manaellus	LA	46	Louisville, Ky.
Owens, Cassius Marcenus			
Owens, Raymond Williams	EE	74	Morris
Oyler, Tames Loyd	ME		Taylorville
Pagle Margaret	LA	104	River Forest
rack, Margaret			
Pagin, John Beitner Paine, Olive Allen Painkinsky, David	ME	21	LaGrange
Paine, Olive Allen	S Ch	68	N. Woodstock, Conn.
Paintingly David	Ch		Salem
Tallkillsky, David	CIE		Satem
Palmer, Eckels	Agr	71	Princeton
Palmer, Gerald Lewis	Ch		Chicago
Polmer James Achiery A. D. A.M.			•
Palmer, James Asbury, A.B., A.M. (Shurtleff Coll.) 1897, 1901	00		CI: 1 V
(Shurtleff Coll.) 1897, 1901	SS		Clinton, Ky.
Palmer, Julius Clark	EΕ	71	Augusta
Palmer William King	Agr	1101	Berwyn
Palmer, Julius Clark Palmer, William King Panhoe, Henry Aki	CF.	1101	
Pannoe, Henry Aki	CE	20	Kamuela, Hawaii
Panhorst, Frederick William	CE	36	Urbana
Pankow, Charles John	A	110	Elgin
Dana I anno Canadant and	TA (CC)		
Pape, Leroy Frendenberg Pape, William Paul	LA (SS)	49	Chicago
Pape, William Paul	Agr sp		Kirkwood
Parent, Eugene Joseph Parish, William Love	LA .	16	Menominee, Mich.
Daniel William I ame	AF	10	
rarish, william Love	AE		Greenfield
Park, George William	S		Murphysboro
Park, George William Park, John Wallace	A	76	Chicago
Parker, Cora, A.B. (Kansas State Norm. Sch.) 1912 Parker, Helen Lucie	••		
Falker, Cola, A.D. (Nansus State			m
Norm. Sch.) 1912	Lb		Emporia, Kans.
Parker, Helen Lucie	LA	139	Champaign
Parker Horatio Newton	SS	5	Champaign
Darker, Horatto Newton	33		
Parker, Lannis Alvin	S	32	Kissimmee, Fla.
Parker, Raymond Webb	EE	36	Champaign
Parker, Horatio Newton Parker, Lannis Alvin Parker, Raymond Webb Parker, Warren Kender	Agr	341	Arlington Heights
Dorlehanet Clade Emers		512	
Parkhurst, Clyde Emery	ME		Waterloo, Ia.
Parkins, Earle Henderson	Agr	63	Chicago
Parkins, Earle Henderson Parkins, George Raymond	Agr		Chicago
Parlinger Hanna Claus		1111	Dunn Station, Pa.
Parkinson, Harry Glenn	Agr	114 ½	
Parkinson, Kenneth Warren	Agr		Maxwell
Parks, Edwin George	Agr		Astoria
Parks Estelle	HSLA sp		Astoria
Parks, Edwin George Parks, Estelle Parks, Ralph Milton Parks, Wilma Gay Parr, Harold Lucien	III SP		
Parks, Kalph Milton	Mus	51	Urbana
Parks, Wilma Gay	LA	30	Cooperstown
Parr. Harold Lucien	S		Urbana
Dansons Dohant Donainel		27	
	Md (SS)	37	Chicago
Partridge, Mazie Edna Partridge, Newton Lyman Paschal, Paul Milton	SS	5	Chicago
Partridge, Newton Lyman	Agr	957	Chicago
Pacchal Paul Milton	BLA	702	St Charles
Daniel Ti Ti		101	St. Charles
Pasewalk, Lloyd Herman	CE	101	Evanston
Pasewalk, Lloyd Herman Patten, Norman Bond, Jr.	AE	46	Minneapolis, Minn.
Patterson Charles Roy	L		Sullivan
Patterson, Charles Roy Patterson, Joseph Julian	1		
Fatterson, Joseph Julian	A		Danville
Patton, Charles Arthur	Agr sp		St. Jacob
	-		

Patton, Elsie	LA	120	Urbana
Dauli Adolph Erederick	LA		Peoria
Paulcen George Frederick	BLA		Marinette, Wis.
Dauma Dichard Fuller	5	25	Omaha, Nebr.
Paulisen, George Frederick Payne, Richard Fuller Payne, Veda Louise Peadro, Earl D	S S CE	90	Chicago
Payne, veda Louise	CE	102	
Peadro, Earl D	CE	102	Sullivan
Pearson, Harriet Angeline, A.D.			4.1. 37.1
(Nebraska Wesleyan Univ.) 1907	Lb		Adams, Nebr.
Pearson, Paul Leo	Agr		N. Crystal Lake
Pearson, Paul Leo Pearson, William Henry	BLA	103	Lena
Peck, Joseph Henry	Agr sp	28 <del>1</del>	Ottawa
Peck. Roy Lee	EE		Oak Park
Peck, Joseph Henry Peck, Roy Lee Peel, Elizabeth Clampett	LA sp		Springfield
Poorles William McCord	Ch	68	Shawnectown
Daines Faul Coulton	ME	59	Chicago
Peeples, William McCord Peirce, Earl Carlton Pell, Flossie Marie	LA	57	Urbana
Pell, Plossie Marie		0.1	
Pengilly, Henry Lugene	ME	81	Chicago
Penn, John George	EE	108	Morris
Pennebaker, Charles Thomas	ME	38	Columbus, Ky.
Penny, Mildred Haynes	Mus		Chicago
Percival, Stella Rebecca Peret, Cecil Hubert	Mus		Champaign
Peret. Cecil Hubert	BLA	100	Scneca, Kans.
Perkins Ethel Comfort	SS	9	Renssalaer, Ind.
Perkins, Ethel Comfort Perkins, Paul Kenneth	Agr sp	33	Paris
Danier Flord John	Md	26	Champaign
Perring, Ployd John		20	Arthur
Perrott, Richard H	SS	0.1	
Perry, George Sanford	Agr	91/2	Chicago
Perrins, Floyd John Perrott, Richard H Perry, George Sanford Perry, Judson Maurice Perry, Margaret Campbell Perry, Ralph Grover	Agr sp		Lindenwood
Perry, Margaret Campbell	HSS	20	Urbana
Perry, Ralph Grover	MnE	35	Urbana
Pervier, Carrie May	HSLA	80	Sheffield
Petersen, Herbert Christian, Peterson, Harold	CE	107	Park Ridge
Peterson Harold	CE	106	Chicago
Peterson, Hilding Cunard Regnault Peterson, Lola Maude Peterson, Ralph Gerald Peterson, William Chandler	ME	85	Chicago
Peterson, finding Cunard Regulation	LA	102	Grand Forks, N. D.
Peterson, Loia Maude	ČE	117	Chicago
Peterson, Raiph Geraid	CE	11/	
Peterson, William Chandler	A		N. Crystal Lake
Petron, Kacho Pobbove	Like	2.2	Musina, Bulgaria
Peyraud, Albert Paul	A	32	Chicago
Peyraud, Albert Paul Pfeffer, Harold Sylvester Pfeiffer, Josef Salisbury	A	$101\frac{1}{2}$	Lebanon
Pfeiffer, Josef Salisbury	BLA		Peoria
Pfrangle, Charles Perry	Cls	24	Aurora
Phelps, John Carne	ME	75	Oak Park
Philbrook, Alma Faye	HSS	25	Rock Island
Phillips Ing Hamilton	Md	52	Chicago
Phillips, Jay Hamilton Phillips, Paul Blair	S		Metropolis
Phasein Maide Tone	HSLA		White Bear, Minn.
Phoenix, Maida Jane Pierson, Walter Raymond	LA		Princeton
Pierson, Walter Raymond		31	
Pike, George Hyde	BLA		Silvis
Pihlgard, Eric Frederick	A	31	Chicago
Pihlgard, Ēric Frederick Pinault, Louis Clovis	A	58½	St. Joseph, Minn.
Ping Clarence Edgar	Agr sp		Auburn
Pinkley, James Pierpont	AE		Gibson City
Pinkney, Fred Theodore	ChE	38	Chicago
Pinkley, James Pierpont Pinkney, Fred Theodore Piper, Harry Bruce Piper, William Ambrose	Agr (SS) CerE	90 ½	Sumner
Piner William Ambrose	CerE	35	Sycamore
Pitsenharger Ethel Gertrude	LA		Champaign
Pitts John Joseph Jr	LA	69	Bloomington
Plack Thoodore	CE	73	Urbana
Tiack, Theodore		, ,	
		66	Chicago
Pitsenbarger, Ethel Gertrude Pitts, John Joseph, Jr. Plack, Theodore Planck, Catherine Melvina Placefore, Edward Challe	HSAgr	66	Chicago Chicago
Platotsky, Edward Charles	HSAgr Ch	1	Chicago
Platt. Casper	HSAgr Ch LA	71	Chicago Danville
Platt. Casper	HSAgr Ch LA HSLA	71	Chicago Danville Rochester, Ind.
Platt. Casper	HSAgr Ch LA HSLA	71 99½	Chicago Danville Rochester, Ind. Rochester, Ind.
Platt. Casper	HSAgr Ch LA HSLA S Lb	71 99½ 153§	Chicago Danville Rochester, Ind. Rochester, Ind. Rochester, Ind.
Platotsky, Edward Charles	HSAgr Ch LA HSLA	71 99½	Chicago Danville Rochester, Ind. Rochester, Ind.

Pomie Harold Austin	BLA		Sullivan
Dames David Weight	BLA	79	Findley
Pogue, Paul Wight			C 11.
Pogue, Harold Austin Pogue, Paul Wright Pogue, Stanley Landon	L	28	Sullivan
	Agr	511	Peoria
Polick, Spesial Burton Pollard, Leila Jean Pollard, Lottie Emily Pollock, Charles William Pollock, Harry Robb	ME		LaGrange
Polk, Wesley Williams		1 61	
Pollard, Leila Jean	HSAgr (SS		St. Charles
Pollard, Lottie Emily	Mus	6	Chicago
Pollock Charles William	EE	131	Seaton
Poliock, Charles William			
Pollock, Harry Kobb	Agr (SS)	100	Champaign
Pollock, James, Jr. Ponder, Wilbur Homer	Agr	741	Cambridge
Pander Wilber Homer	BLA	116	Urbana
Politici, Wilbut Homer			Ottawa
Pool, Ernest Howard	LA	35	
Pool, Ernest Howard Pope, Grace Castello	LA EE	33	Centralia
Pope, Lawrence Arthur	FF	68	Moline
Pope, Lawrence Arthur			
Porter, Agnes Nellie	LA	118	Olney
Porter, Agnes Nellie Porter, Charley Lyman Porter, Flora May Porter, Harry Gates Porter, Webster K	Agr	123⅓	Mackinaw
Porter Flora May	Agr sp		Urbana
Forter, Flora May			
Porter, Harry Gates	Agr		Garden Prairie
Porter, Webster K	ChE		Belvidere
Posterfold Willard Blaine	BLA	90	Fairmount
Policilleid, Willard Diame			
Porterfield, Willard Blaine Portuondo y Miyares, Antonio	Agr (SS)	85	Santiago, Cuba
Postel, Frederick William Poston, Floyd Emerson Potter, Emery Vern	BLA	41	Mascoutah
Destan Flour Emerson	S	63	Attica, Ind.
Poston, Floyd Emerson	2	03	
Potter, Emery Vern	EE	35	Champaign
Powell Bernice	LA SS	543	Des Moines, Ia.
D11 Hand Flanes	22	91	Muskogee, Okla.
Powell, Hazel Florence	22	7 2	
Powell, Stanley Noyce	CE	29	Bowen
Power Paul Waring	ME		Petersburg
D. F. J Distanced		591	
Powers, Fred Richmond	Agr		Tiskilwa
Powell, Bernice Powell, Hazel Florence Powell, Stanley Noyce Power, Paul Waring Powers, Fred Richmond Powers, I Orin Powers, Leroy Tallman	SS	102	Champaign
Powers Terow Tallman	Agr	67 1/2	Sterling
D to Ct to El - 1 T-			
Prahman, Charles Edward, Jr.	S	32	Oak Park
Prahman, Charles Edward, Jr. Prahman, Hazel	LA		Oak Park
Prasil, Anton	ChE	71	Berwyn
D TT. D. T.		, ,	
Presson, Harry Bristol Presson, Lola Iris	EE		Champaign
Presson, Lola Iris	HSS		Champaign
Preston Alvin Fred			Montfort, Wis.
Treston, Aivin Fred	Agr CE	7.2	I C 1772
Preus, Paul Rudolph Arctander		72	LaCrosse, Wis.
Price. Charles Bradlaw	Agr sp	32	Vienna
	n	33	1º Tiboutes Tand
Price, Earl Franklin	BLA	33	N. Liberty, Ind.
Price, Earl Franklin Price, Harry Brusha	SS	931	Fulton
Price, Earl Franklin Price, Harry Brusha Price, John McCrea	SS	931	Fulton
Price, Earl Franklin Price, Harry Brusha Price, John McCrea Price, John McCrea	SS Cer	93 <del>1</del> 13	Fulton Brazil, Ind.
Presson, Loia Iris Presson, Alvin Fred Preus, Paul Rudolph Arctander Price, Charles Bradlaw Price, Earl Franklin Price, Harry Brusha Price, John McCrea Prickett, Alva LeRoy	SS Cer BLA	93 <del>1</del> 13 116	Fulton Brazil, Ind. Litchfield
Price, Earl Franklin Price, Harry Brusha Pricket, John McCrea Prickett, Alva LeRoy Primm, James Kelly	SS Cer BLA	93 <del>1</del> 13 116 15	Fulton Brazil, Ind. Litchfield Champaign
Price, Earl Franklin Price, Harry Brusha Price, John McCrea Prickett, Alva LeRoy Primm, James Kelly Primm, Philin Timon	SS Cer BLA	93 <del>1</del> 13 116 15	Fulton Brazil, Ind. Litchfield Champaign
Price, Earl Franklin Price, Harry Brusha Price, John McCrea Prickett, Alva LeRoy Primm, James Kelly Primm, Philip Timon	SS Cer BLA	93 <del>1</del> 13 116 15 15	Fulton Brazil, Ind. Litchfield Champaign Champaign
Price, Earl Franklin Price, Harry Brusha Price, John McCrea Prickett, Alva LeRoy Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot	SS Cer BLA	93 <del>1</del> 13 116 15	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper	SS Cer BLA	93 <sup>1</sup> / <sub>3</sub> 13 116 15 15 15 113 <sup>1</sup> / <sub>2</sub>	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper	SS Cer BLA	93 <sup>1</sup> / <sub>3</sub> 13 116 15 15 113 <sup>1</sup> / <sub>2</sub> 135	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE	93 <sup>1</sup> / <sub>3</sub> 13 116 15 15 113 <sup>1</sup> / <sub>2</sub> 135	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE	93 <sup>1</sup> / <sub>3</sub> 13 116 15 15 113 <sup>1</sup> / <sub>2</sub> 135 94	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE	93 <sup>1</sup> 3 13 116 15 15 113 <sup>1</sup> 2 135 94 24	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE	93 <sup>1</sup> / <sub>3</sub> 13 116 15 15 113 <sup>1</sup> / <sub>2</sub> 135 94	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS)	93 <sup>1</sup> 3 13 116 15 15 113 <sup>1</sup> 2 135 94 24 68	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp	93 <sup>1</sup> 3 13 116 15 15 113 <sup>1</sup> 2 135 94 24	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belwidere Chicago Chicago Chicago Chicago Chicago Chicago Chicago Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp	93½ 13 116 15 15 113½ 135 94 24 68 25½	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Champaign
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Pront. Fred Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp	93 <sup>1</sup> 3 13 116 15 15 113 <sup>1</sup> 2 135 94 24 68	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Champaign
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Pront. Fred Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp Mus sp RME	93½ 13 116 15 15 113½ 135 94 24 68 25½	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Belwidere Chicago Champaign Chicago Chicago Champaign Chicago Topeka, Kans.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Pront. Fred Joseph	SS Cer BLA A A S Ch CE S Agr Agr sp Mus sp RME CE	93½ 13 116 15 15 113½ 135 94 24 68 25½	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Chicago Chicago Topeka, Kans. Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Pront. Fred Joseph	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr	931 13 116 15 15 1132 135 94 24 68 251 111 81	Fulton Brazil, Ind. Litchheld Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Chicago Chicago Chicago Champaign Chicago Chicago Chicago Chicago Chicago Kinmundy
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr	93½ 13 116 15 15 113½ 135 94 24 68 25½	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Beltvidere Chicago Chicago Chicago Chicago Chicago Chicago Champaign Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise	SS Cer BLA A A A S Ch CE S Agr Agr Sp Mus sp Mus sp RE CE Agr Mus ME Agr Mus	931 13 116 15 15 1132 135 94 24 68 251 111 81	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Beltvidere Chicago Chicago Chicago Chicago Chicago Chicago Champaign Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE CE Agr Mus CE	931 13 116 15 15 1131 135 94 24 68 251 111 81	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Champaign Chicago Topeka, Kans. Chicago Kinmundy Urbana Chicago
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus sp RME CE Mus sp RME CH Mus sp Mus Che Mus Che Mus Che Mus Che Mus Che Mus Che Mus	931 13 116 15 15 1131 135 94 24 68 251 111 81 23	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Beltvidere Chicago Chicago Chicago Kampaign Chicago Kincago Kinmundy Urbana Chicago Montelair N I
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Prutt, Joe Lida Prussing, Arthur William Pudney, William Kent Puch, Ada Roberta	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus sp RME CE Mus sp RME CH Mus Sp Mus Sp Mus Sp Mus Sp Mus Che Mus Che Mus Che Mus Ma	931 13 116 15 15 1131 135 94 24 68 251 111 81 23	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Beltvidere Chicago Chicago Chicago Kampaign Chicago Kincago Kinmundy Urbana Chicago Montelair N I
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Prutt, Joe Lida Prussing, Arthur William Pudney, William Kent Puch, Ada Roberta	SS Cer Cer Cer CE S Ch CE S Agr Agr Sp Mus sp Mus sp RME CE Agr Mus CE Mus CH Mus SS	931 13 116 15 15 1131 135 94 24 68 251 111 81 23 828	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Beltvidere Chicago Chicago Chicago Kincago Kincago Kinmundy Urbana Chicago Montelair, N. J. Champaign
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Prutt, Joe Lida Prussing, Arthur William Pudney, William Kent Puch, Ada Roberta	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus CE Mus	931 13 116 15 15 1132 135 94 24 68 251 111 81 23 502 82 82 90 90 90 90 90 90 90 90 90 90 90 90 90	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Kampaign Chicago Topeka, Kans. Chicago Kiumundy Urbana Chicago Montclair, N. J. Champaign Honolulu, Hawaii
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Prutt, Joe Lida Prussing, Arthur William Pudney, William Kent Puch, Ada Roberta	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus RME CE Agr Mus Che CE Agr Mus CHE Agr Agr Agr Mus CHE Agr Mus CHE Agr Mus CHE Agr MA	931 13 116 15 15 1131 135 94 24 68 251 111 81 23 828	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Chicago Chicago Chicago Chicago Topeka, Kans. Chicago Kinmundy Urbana Chicago Montclair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Prutt, Joe Lida Prussing, Arthur William Pudney, William Kent Puch, Ada Roberta	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus RME CE Agr Mus Che CE Agr Mus CHE Agr Agr Agr Mus CHE Agr Mus CHE Agr Mus CHE Agr MA	931 13 116 15 15 1132 135 94 24 68 251 111 81 23 502 82 82 90 90 90 90 90 90 90 90 90 90 90 90 90	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Kampaign Chicago Topeka, Kans. Chicago Kiumundy Urbana Chicago Montclair, N. J. Champaign Honolulu, Hawaii
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert	SS Cer BLA A A S Cli CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus SS RCE (SS A Agr sp	93½ 13 116 15 15 15 113½ 135 94 24 68 25½ 111 81 23 50½ 82 82 82 9 69 33	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Champaign Chicago Topeka, Kans. Chicago Kinmundy Urbana Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prout, Fed Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert Pursley. Emma Stine	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus CHE Mag RME CR Agr Agr Agr Agr Agr Agr Agr	933 13 116 15 15 1131 24 24 24 25 21 111 81 23 503 828 828 933 33	Fulton Brazil, Ind. Litchheld Champaign Conover, O. Coin. Iowa Chicago Montelair, N. J. Champaign Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton Kansas City, Mo.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prout, Fed Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert Pursley. Emma Stine	SS Cer BLA A A S Ch CE S Agr sp Mus sp RME CE Agr Mus Che Agr Mus Che Agr Agr Mus Che Md Agr Md Agr Agr Agr Agr Agr Agr Agr Agr	93½ 13 116 15 15 113½ 135 94 24 68 25½ 111 81 23 50½ 82§ 9 69 33	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Belwidere Chicago Chicago Chicago Chicago Kinama Chicago Kinmundy Urbana Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton Kansas City, Mo. Kansas City, Mo.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prout, Fed Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert Pursley. Emma Stine	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Agr Mus CHE Mag RME CR Agr Agr Agr Agr Agr Agr Agr	933 13 116 15 15 1131 24 24 24 25 21 111 81 23 503 828 828 933 33	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Belwidere Chicago Chicago Chicago Chicago Kinama Chicago Kinmundy Urbana Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton Kansas City, Mo. Kansas City, Mo.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Proesel, William John Prosser, Clara Louise Prout, Fred Joseph Prout, Fed Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert Pursley. Emma Stine	SS Cer BLA A A S Ch CE S Agr CE (SS) Agr sp Mus sp RME CE Md SS RCE Md SS Agr Agr Agr Agr Agr Agr Agr ChE Agr ChE ChE ChE ChE Agr Agr ChE	933 13 116 15 15 1131 24 24 24 25 21 111 81 23 503 828 828 933 33	Fulton Brazil, Ind. Litchfield Champaign Champaign Conover, O. Coin. Iowa Chicago Chicago Belvidere Chicago Chicago Topeka, Kans. Chicago Kinmundy Urbana Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton Kansas City, Mo. Kansas City, Mo. Kansas City, Mo. St. Louis, Mo.
Primm, James Kelly Primm, Philip Timon Prince, Ford Smoot Prince, William Jasper Prindiville, Francis Joseph Prindle, Merwin Logsdon Pritchard, Paul Herbert Pritzlaff, Charles Philip John Prosser, Clara Louise Prout, Fred Joseph Prouty, Edwin Chester Pruett, Eugene Francise Pruitt, Joe Lida Prussing, Arthur William Pudney, William Kent Pugh, Ada Roberta Pung, William Sing-Chong Purdy, Raymond Harry Purl, Charles Gilbert	SS Cer BLA A A S Ch CE S Agr sp Mus sp RME CE Agr Mus Che Agr Mus Che Agr Agr Mus Che Md Agr Md Agr Agr Agr Agr Agr Agr Agr Agr	933 13 116 15 15 1131 24 24 24 25 21 111 81 23 503 828 828 933 33	Fulton Brazil, Ind. Litchfield Champaign Conover, O. Coin. Iowa Chicago Chicago Belwidere Chicago Chicago Chicago Chicago Kinama Chicago Kinmundy Urbana Chicago Montelair, N. J. Champaign Honolulu, Hawaii Vincennes, Ind. Carrollton Kansas City, Mo. Kansas City, Mo.

			cm1 111
Quick, George Edward	AE	75	Tiskilwa
Ouick. Harry	ME		Tiskilwa
Quinn Bernice Mae	L.A	89	LaFayette
Dark Amita Emma	TA	27	Belleville
Quick, George Edward Quick, Harry Quinn, Bernice Mae Raab, Anita Emma Rackliffe, Thomas Thayer Radmore, Eleda Blake Rafferty, Clive Kleckner Rahn, Robert Charles	S		
Rackliffe, Thomas Thayer	2	173	St. Joseph, Mo.
Radmore, Eleda Blake	Mus sp	14	Chicago
Rafferty, Clive Kleckner	Agr	263	Carrollton
Pahn Pohert Charles	S		Chicago
Railli, Robert Charles	LA		
Raibourn, Claude		,	Waterloo
Raithel, Arthur Christopher	EE	6	Chicago
	CE	39	Chicago
Dalaton Stuart Albert	EE	120	Caledonia
Raiston, Stuart Mibert	1 (00)		
Ramey, Frank Willard	A (SS)	3	Champaign
Ramey, Robert Henry	Agr	531	Champaign
Ramsey, Carrie Eva	SS	248	Danville
Ralston, Stuart Albert Ramey, Frank Willard Ramey, Robert Henry Ramsey, Carrie Eva Ramsey, Leonidas Willing Ramsey, Robert Willing	Agr	581	Hazlehurst, Miss.
Ramsey, Leonidas William		302	Harlahanat Mica
Ramsey, Robert Willing	LA		Hazlehurst, Miss.
Ramseyer, Ben Rand, Charles Classin	Agr		Urbana
Rand, Charles Claffin	Cer	105	Lombard
Dandell Thomas David	ME	41	Chicago
Randall, Inomas David			
Randall, Thomas David Randolph, Hallie Burnside Randolph Oscar Alan RS	Agr .	603	Covington, Ind.
Randolph, Oscar Alan, B.S. (Missouri School of Mines) 1911			
(Missouri School of Mines) 1911	SS		Urbana
D 111 School of Mines) 1911		110	
Randolph, Otto Coffeen Fitz Rang, Carl King Rankin, Hugh Walker Ranson, Ethel Alice Rapp, Edwin Wallace Rapp, John Holly Rapp, Peter George Rappaport, Benjamin Julius Rappleye, Willard Cole Ratcliff, Frank Damon Ratcliff, Glenn Rathbun, Acors Earl	CE	110	Chicago
Rang, Carl King	LA	68	Rockford
Rankin, Hugh Walker	ME (SS)	5	Cincinnati, Ohio
Danier Fal Alice	LA	100	Havana
Ranson, Etnel Ance		100	
Rapp, Edwin Wallace	Md		Aurora
Rapp. John Holly	LA (SS)	31	Fairfield
Pann Peter George	SS	34	Fairfield
Daring Tuling	AE	86	Chicago
Rappaport, Benjamin Julius			
Rappleye, Willard Cole	Md	18	Menominee, Mich.
Ratcliff Frank Damon	ME	57	Olnev
Potoliff Clann	SS	71	Greenup
Ratchin, Glenn			
Rathbun, Acors Earl	S _	135	Glen Ellyn
Rathfon, William Owen	CerE	35	Chicago
Rauch Paul Vincent	A	64	Wichita, Kan.
Dane Alfand	Agr (SS)	43	Sadalia Ma
Raut, Alfred			
	E.E.		Daniel India
Ray, Bankin Chandre	EE		Sedalia, Mo. Bengal, India
Ray, Bankin Chandre Ray, Bryne Lucas	E <b>E</b> S	1091	Mason City, Ia.
Rathlun, Acors Earl Rathlon, William Owen Rauch, Paul Vincent Raut, Alfred Ray, Bankin Chandre Ray, Bryne Lucas Raybur Allan Barnes	E <b>E</b> S	1091	Mason City, Ia.
Ray, Bankin Chandre Ray, Bryne Lucas Rayburn, Allan Barnes	EE S Agr		Mason City, Ia. Bloomington
Raybull, Charles Thomas	EE S Agr LA	109½ 32	Mason City, Ia. Bloomington Belleville
Raybull, Charles Thomas	EE S Agr LA HSAgr	109½ 32 31	Mason City, Ia. Bloomington Belleville Evansville, Ind.
Raybull, Charles Thomas	EE S Agr LA	109½ 32	Mason City, Ia. Bloomington Belleville
Raybull, Charles Thomas	EE S Agr LA HSAgr EE	109½ 32 31 37	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles
Raybill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read Martha McClelland	EE S Agr LA HSAgr EE SS	109½ 32 31 37 2	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La.
Raybill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read Martha McClelland	EE S Agr LA HSAgr EE SS HSAgr	109½ 32 31 37	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE SS HSAgr EE	109½ 32 31 37 2	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE SS HSAgr EE BLA	109½ 32 31 37 2 18	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baion Rouge, La. Centralia Canton Sterling
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE SS HSAgr EE BLA	109½ 32 31 37 2 18	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baion Rouge, La. Centralia Canton Sterling
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE HSAgr EE BLA ME	109½ 32 31 37 2	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE HSAgr EE BLA ME LA	109½ 32 31 37 2 18	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagen Maurice	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp	109½ 32 31 37 2 18	Mason City, la. Bloomington Belleville Evansville, Ind. Marseilles Baion Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore § Redhorg, Carl Eric	EE S Agr LA HSAgr EE HSAgr EE BLA ME	109½ 32 31 37 2 18	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore § Redhorg, Carl Eric	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA	109½ 32 31 37 2 18 37 50½ 87	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore § Redhorg, Carl Eric	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA Agr sp BLA RCE	109½ 32 31 37 2 18 37 50½ 87 124	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore § Redhorg, Carl Eric	EE S S Agr LA HSAgr EE SS SSAgr EE BLA ME LA Agr sp BLA RCE LA	109½ 32 31 37 2 18 37 50½ 87	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore § Redhorg, Carl Eric	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS SS	109½ 32 31 37 2 18 37 50½ 87 124 102½	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y.
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed. Clara Mabel	EE S S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS LA	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y.
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed. Clara Mabel	EE S S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS LA	109½ 32 31 37 2 18 37 50½ 87 124 102½	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed. Clara Mabel	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS LA CE	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed. Clara Mabel	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA RCE LA CCE LA CCE CCE CCE CCE CCE CCE CCE CCE CCE CC	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS LA CE HSLA LA	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117 36	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA SS LA CE HSLA LA	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117 36	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA CE HSLA LA LA LA (SS)	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117 36	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S Agr LA HSAgr EE SS SS HLA ME LA ME LA Agr sp BLA RCE LA SS LA CE LA CE LA CA CA CA CA CA CA CA CA CA CA CA CA CA	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117 36	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Citronelle, Ala.
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S S Agr LA HSAgr EE SS SHA ME LA Agr BLA RCE LA SS LA CE HSLA LA CA LA CA Agr Agr Agr Agr	109½ 32 31 37 21 8 37 50½ 87 124 102½ 29 117 36	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Urbana Urbana Urbana Citronelle, Ala. Waterloo
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore J Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Cartia Jewett Reese, Leal Wiley	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA CE LA CE LA CB LA	109½ 32 31 37 2 18 37 50½ 87 124 102½ 29 117 36 107½ 107 29½ 38½	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Citronelle, Ala. Waterloo
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore ! Redborg, Carl Eric Reddersen, Edward Ernest Redded, Alice Reed, Clara Mabel Reed, Clara Mabel Reed, Erwin Ambrose Reed, Gratia Jewett Reese, Leal Wiley Reeves, Harry Payne Reeves, Herman Thornton Rehling, Charles Henry Reichard, Della May	EE S S Agr LA HSAgr EE SS SHA ME LA Agr BLA RCE LA SS LA CE HSLA LA CA LA CA Agr Agr Agr Agr	109½ 32 31 37 218 37 50½ 87 124 102½ 29 117 36 107½ 29½ 38¾ 74	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Urbana Urbana Urbana Citronelle, Ala. Waterloo
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore ! Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Clara Mabel Reed, Erwin Ambrose Reed, Gratia Jewett Reese, Leal Wiley Reeves, Harry Payne Reeves, Herman Thornton Rehling, Charles Henry Reichard, Della May Reid, Ernest Alexander	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA CE HSLA LA CA Agr Agr LA CE HSLA LA CE HSLA LA L	109½ 32 31 37 218 37 50½ 87 124 102½ 29 117 36 107½ 29½ 38¾ 74	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Urbana Citronelle, Ala. Waterloo Urbana Deer River, Minn.
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore j Redborg, Carl Eric Reddersen, Edward Ernest Redder, Alice Reed, Clara Mabel Reed, Clara Mabel Reed, Clara Mabel Reed, Gratia Jewett Reese, Leal Wiley Reeves, Harry Payne Reeves, Herman Thornton Rehling, Charles Henry Reichard, Della May Reid, Ernest Alexander Reid. Mollie	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA CE HSLA LA (SS) Agr LA Agr LA SS SS	109½ 32 31 37 22 18 37 50½ 87 124 102½ 29 117 36 107½ 107½ 74 133½	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Citronelle, Ala. Waterloo Urbana Deer River, Minn. Ozark
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore ; Redborg, Carl Eric Reddersen, Edward Ernest Redhed, Alice Reed, Chester Otis, B.S., 1911 Reed, Clara Mabel Reed, Gratia Jewett Reese, Leal Wiley Reeves, Harry Payne Reeves, Herman Thornton Rehling, Charles Henry Reichard, Della May Reid, Ernest Alexander Reid, Mollie Reid, Olive Gertrude	EE S S Agr LA HSAgr EE SSS HSAgr EE BLA ME LA Agr sp BLA SS LA CE LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	109½ 32 31 37 218 37 50½ 87 124 102½ 29 117 36 107½ 137 38½ 138½	Mason City, Ia. Bloomington Belleville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Citronelle, Ala. Waterloo Urbana Deer River, Minn. Ozark Urbana
Rayhill, Charles Thomas Raymond, Reva Jane Reace, William Thomas Read, Martha McClelland Reader, Emma Grace Reagan, Maurice Real, John Jeremiah Reber, Edwin Perry Reckitt, Charles Ernest Rector, Theodore j Redborg, Carl Eric Reddersen, Edward Ernest Redder, Alice Reed, Clara Mabel Reed, Clara Mabel Reed, Clara Mabel Reed, Gratia Jewett Reese, Leal Wiley Reeves, Harry Payne Reeves, Herman Thornton Rehling, Charles Henry Reichard, Della May Reid, Ernest Alexander Reid. Mollie	EE S Agr LA HSAgr EE SS HSAgr EE BLA ME LA Agr sp BLA RCE LA CE HSLA LA (SS) Agr LA Agr LA SS SS	109½ 32 31 37 22 18 37 50½ 87 124 102½ 29 117 36 107½ 107½ 74 133½	Mason City, Ia. Bloomington Belleville Evansville, Ind. Marseilles Baton Rouge, La. Centralia Canton Sterling Rockford Evanston Smithfield Batavia Chicago Tolono Rochester, N. Y. Champaign Chicago Warsaw Urbana Urbana Citronelle, Ala. Waterloo Urbana Deer River, Minn. Ozark

Reimert, Robert Rutter, Jr.	AE	94	Chicago
Rein, Fritz	Agr	137	Gilman
Reinel, Bert Edward	LA		Streator
Accident Dere Baward	4	20	
Reinhart, Irvin Julius Reisner, Charles Leonard Reitz, Walter Richard	Agr sp Agr (SS) ME	32	Alhambra
Paigner Charles Leonard	Ane (55)	110	Sterling
Reisher, Charles Leonard	2191 (33)		
Reitz, Walter Richard	ME	116	Chicago
Remsberg, William Norris	Ch		
Remsberg, William Norris	Ch		LaMoille
Renner, Julia Elizabeth Renner, Sylvia Pearl Reno, Guy Benjamin	LA	32	Urbana
Remner, Juna Linzabeta			
Renner, Sylvia Pearl	HSAgr	62	Urbana
Dans Com Daniamin		35	
Keno, Guy Benjamin	LA		Browning
Renwick, George W	ME	5	Chicago
Reliwick, October 11		•	
Requarth, Clarence Fredrick	AE		Decatur
Dauling Fred William	BLA	60	Morton
Requarth, Clarence Fredrick Reuling, Fred William Reum, Hope Edwin	DLA		11/1 07 6 076
Reum Hone Edwin	CE	113	Chicago
Reum, Hope Barrin	16		
Kexwinkle, Daphne Margaret	Mus	59	Vandalia
Reswinkle, James James	A		Vandalia
Rexwillkie, Jailles			
Rhea Chleo Tames Tares	EE	551	Jacksonville
Di C C 1			
Rice, Grover Colvin	S	81	Irving
Rhea, Chleo James Jares Rice, Grover Colvin Rice, Hugh Monroe	Agr	631	Gillespie
Rice, Hugh Monitor			
Rich, Donald Bert	Agr	331	Chicago
Rich, Donald Bert Rich, Ernest Albert Rich, Irwin DeForest Rich, John Lindsay Rich, Paul Cobb			
Rich, Ernest Albert	L	57	Washington
Dich Temin DeForest	A		Cedar Rapids, Ia.
Rich, liwin Deroiest			
Rich, John Lindsay	BLA		Farmer City
Dia Dal Call		~ *	
Rich, Paul Cobb	ChE	75	Chicago
Dicharda Halan Maria	S	731	Joliet
Richards, Helen Marie Richards, Lenore			
Richards, Lenore	HSLA	56	Urbana
D' 1 1 C1 - 1		70	
Richardson, Charles Richardson, Frank B, Jr.	Agr	70	Louisville, Ky.
Dichardson Frank R Ir	Agr	48	Chenoa
Richardson, Frank D. Ji.			
Richardson, Juanita Bonnie	HSAgr (SS)	20	Danville
D' 1 D 1 13	CE (SE)	7.4	
Richart, Frank Erwin Riche, Arthur Louis	CE	74	Urbana
Dicho Arthur Louis	EE	124	Nora Springs, Ia.
Riche, Arthur Louis			
Richey, Friedel Chapin	Agr	52	Chicago
Richmond, George Kerns	BLA	341	Prophetstown
Ricks, Helen Gladys	SS	4	Iowa Falls, Ia.
Riddle, Lillian	LA	101	Mattoon
Riddle, Lillian	LA	101	Mattoon
Riddle, Lillian Ridgley, Temple Elliott		131½	Springfield
Ridgley, Temple Elliott	SS		Springfield
Ridgley, Temple Elliott	SS Agr	1311	Springfield St. Louis, Mo.
Ridgley, Temple Elliott	SS Agr	1311	Springfield St. Louis, Mo.
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris	SS Agr CE	131½ 75	St. Louis, Mo. Chicago
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris	SS Agr CE	75 36\frac{1}{3}	Springfield St. Louis, Mo.
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris	SS Agr CE Agr sp (SS)	75 36\frac{1}{3}	Springfield St. Louis, Mo. Chicago Goldengate
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr	75 36½ 56½	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr	75 36½ 56½	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr LA (SS)	75 36½ 56½ 92½	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp	75 36½ 56½ 92½ 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp	75 36½ 56½ 92½ 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA	75 36 <sup>1</sup> / <sub>2</sub> 56 <sup>1</sup> / <sub>2</sub> 92 <sup>1</sup> / <sub>2</sub> 33 28	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA	75 36½ 56½ 92½ 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr	75 36½ 56½ 92½ 33 28 62	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA	75 36½ 56½ 92½ 33 28 62 27	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA	75 36½ 56½ 92½ 33 28 62 27	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr	75 361 561 921 33 28 62 27 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr EE	75 36½ 56½ 92½ 33 28 62 27	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana St. Louis, Mo.
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Risley, Lean Kimberly	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr EE	75 361 561 921 33 28 62 27 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana St. Louis, Mo.
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Glenn Arthur	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr EE	75 36 56 92 33 28 62 27 33 44	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Springfield Chicago Champaign Urbana St. Louis, Mo. Fandalia
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Glenn Arthur	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr EE	75 36 56 92 33 28 62 27 33 44	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Springfield Chicago Champaign Urbana St. Louis, Mo. Fandalia
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Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Glenn Arthur Ritts, Charles Laurance Rives, Nannie Baxter Robbins, Ruth	SS Agr CE Agr sp (SS) Agr LA (SS) LA sp HSLA Agr LA Agr EE LA Agr ELA AGR LA	75 36 1 92 1 33 28 62 27 33 44 37 28 33	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana St. Louis, Mo. Fandalia Oblong Rockbridge Congress Park
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Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Ferdinand Theodore Ritter, Glenn Arthur Ritts, Charles Laurance Rives, Nannie Baxter Robbins, Ruth Roberson, Mary Robert, Jules Henry Roberts, Elmer Roberts, Elmer Roberts, Elmer Roberts, Harold Higbee Roberts, Harry Vivian Roberts, Kathleen Alice, Roberts, Lois Madeline Roberts, Nellie Read Robertson, Eva Love Robertson, Louis Harry	SS Agr CE Agr sp (SS) LA (SS) LA sp HSLA Agr EE LA Agr AA Agr EE LA A A A A A A A A A A A B A A A A A A	131½ 75 36½ 36½ 33 28 62 27 33 44 37 28 33 8 75 66 105 66 113 101 55	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana St. Louis, Mo. Vandalia Oblong Rockbridge Congress Park Mound City Lacon St. Louis, Mo. Burnside, Ky. Chicago White Hall Morning Sun, Ia. Springfield Champaign Decatur Champaign Morrison Blue Island
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Ferdinand Theodore Ritter, Glenn Arthur Ritts, Charles Laurance Rives, Nannie Baxter Robbins, Ruth Roberson, Mary Robert, Jules Henry Roberts, Elmer Roberts, Elmer Roberts, Elmer Roberts, Harold Higbee Roberts, Harry Vivian Roberts, Kathleen Alice, Roberts, Lois Madeline Roberts, Nellie Read Robertson, Eva Love Robertson, Louis Harry	SS Agr CE Agr sp (SS) LA (SS) LA sp HSLA Agr EE LA Agr AA Agr EE LA A A A A A A A A A A A B A A A A A A	131½ 75 36½ 36½ 33 28 62 27 33 44 37 28 33 8 75 66 105 66 113 101 55	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Saunemin Springfield Chicago Champaign Urbana St. Louis, Mo. Vandalia Oblong Rockbridge Congress Park Mound City Lacon St. Louis, Mo. Burnside, Ky. Chicago White Hall Morning Sun, Ia. Springfield Champaign Decatur Champaign Morrison Blue Island
Ridgley, Temple Elliott Riesmeyer, Fred Haase Riff, David Morris Rigg, Granville Leroy Riggs, Ray Vere Righter, Nellie Pauline Righter, Pearl Geneva Rinaker, Dorothy Sue Ripley, Jean Kimberly Rising, Blanche Josephine Ritchey, Royal Wane Ritter, Ferdinand Theodore Ritter, Glenn Arthur Ritts, Charles Laurance Rives, Nannie Baxter Robbins, Ruth Roberts, Mannie Baxter Robbins, Ruth Roberts, Harold Higbee Roberts, Erma Dorothy Roberts, Erma Dorothy Roberts, Harold Higbee Roberts, Harry Vivian Roberts, Irvin Levi Roberts, Kathleen Alice, A.B., 1906 Roberts, Kathleen Alice, Roberts, Nellie Read	SS Agr sp (SS) Agr sp (SS) LA (SS) LA sp HSLA Agr LA LA LA Agr EE LA LA Agr HSLA SS HSAgr ME SS HSAgr ME SS SS LA	75 1 1 2 3 3 4 4 3 7 2 8 3 3 8 7 5 10 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Springfield St. Louis, Mo. Chicago Goldengate Jerseyville Champaign Springfield Chicago Champaign Urbana St. Louis, Mo. F'andalia Oblong Rockbridge Congress Park Mound City Lacon St. Louis, Mo. Burnside, Ky. Chicago White Hall Morning Sun, Ia. Springfield Champaign Decatur Champaign Morrison

Robinson, Albert William	ME		Oak Park
Robinson, Florence Elinor	LA	104	Urbana
Robinson, Henry Duncan	BLA	29	Rochford
Dohor Dena	22	6	Rockford Mt. Vernon St. Louis, Mo.
Robrock, Lawrence Martin Rockhold, Kenneth Edward Rockrohr, William Rockwell, Sylvester Thomas	SS ChE		Mi. Vernon
Robrock, Lawrence Martin	Che	41	St. Louis, Mo.
Rockhold, Kenneth Edward	CerE	72	Burlington, Ia.
Rockrohr, William	BLA	5	Dolton
Rockwell, Sylvester Thomas	CE	36	Rock Island
	ME (SS)	711	Sterling
Rodgers, Perry Harrison	BLA		Atwood
Roe, Harry Austin	ME	351	
Roefer, Charles Martin			Lanchburg, Sask.
Roelei, Charles Martin	Cer (SS)	46	Elgin
Roesner, Hedwig Elizabeth	Mus (SS)	11	Moline
Roessler, William Otto	Agr		Shelbyville
Rogers, Gardner Spencer	Agr		Evanston
Roesner, Hedwig Elizabeth Roessler, William Otto Rogers, Gardner Spencer Rogers, Harry Barrett Rogers, Harry Thomas	CE	423	Oah Park
Rogers, Harry Thomas	AE		Champaign
Rogers Russell David	AE		Pekin
Rogers, Russell David Rohde, Minnie Eleanore	HSAgr		Bement
Dalifar Alfard Dalard			
Rollfing, Alfred Robert Rollfing, Walter Louis	BLA	71	Groveland
Rohinng, Walter Louis	Agr		Groveland
	AE		Chicago
Rohrhough, Frank Charles	CE	108	Kinmundy
Rohrer, Frank Phillip Roland, Lela Mae Roland, Vern Anton	ChE	32	Gilman
Roland, Lela Mae	HSAgr		Champaign
Roland Vern Anton	AE	73	
Dolfo Amy Lucilo A D 1000	Mus	13	Champaign
Rolfe, Amy Lucile, A.B., 1908 Rollo, Robert Penman			Champaign
Rollo, Robert Penman	L	80	Murphysboro
Roman, Oscar	Agr	65	Granite City
Romeiser, Alvin Romine, Joseph Fred	BLA		Belleville
Romine, Joseph Fred	Agr	36	Atwood
Roodhouse, Henry	Agr	-	White Hall
Root Kimball Valentine	Cer	58	Chicago
Root, Kimball Valentine Rooth, Carrie Lee	LA (SS)		Joy
Designed Wilfred Court		86	
Ropiequet, Wilfred Crouch	LA	75	Belleville
Rose, Harold Boone	ME	30½	Urbana
Rosenberg, Herbert Bernard	Agr		Granite City
Rosenkrans, Carl Otto	Agr sp	10	Paruparu
Rosenthal, Joseph D	Agr		Chicago
Rosenstone, Reuben Eric	Agr		Cambridge
Ross, Clarence Samuel	C	1113	Joplin, Mo.
Ross Contrado Daman	SS	4	Philo
Ross, Gertrude Duncan Ross, Glenn Thompson Ross, Kenneth Lwight	BLA		
Ross, Glenn I nompson		84	Urbana
Ross, Kenneth Lwight	LA		Grand Island, Neb.
ROSS, Robert Malcolm.			
A.B., 1905, M.D., 1906	S LA	130	Chicago
Ross, Roy Meneley	LA	81	Urbana
A.B., 1905, M.D., 1906 Ross, Roy Meneley Ross, Thomas Allen	Agr	341	Chicago
Rossett, Louis	EE	85	Chicago
Roth, Ben J	S	0.5	Chenoa
Dothach Tossis Disasts	HSLA	40	
Rothgeb, Jessie Blanche		66	Wellington
Rothrock, Howard Moore Rottger, Russel Curtis Rounds, Fred Grafton Rourke, Ellen M	EE		Chicago
Rottger, Russel Curtis	LA	101	Springfield
Rounds, Fred Grafton	$\boldsymbol{A}$	40	St. Paul, Minn.
Rourke, Ellen M	SS SS	261	Springfield
Rourke, Margaret Flizabeth	22	7	Springfield
Rowe Clinton Albert	Agr	•	Linton, Ind.
Rourke, Margaret Elizabeth Rowe, Clinton Albert Rowe, Enos Marion Rowe, Eugene Chauncey		68	Shools Ind
Powe Fucono Chemina	Agr		Shoals, Ind. Veedersburg, Ind.
Rowe, Eugene Chauncey	EE	1023	veedersourg, Ind.
Rowe, Richard Lates	LA (SS) LA	961	Jacksonville
Rowland, Leslie William	LA		Oak Park
Roy, Herman Emil	A		Chicago
Roy, Surv Kauta	A S	60±	Lucknow, India
Ruby, George Benjamin	ChE	31	Yorkville
Roy, Herman Emil Roy, Sury Kauta Ruby, George Benjamin Ruby, Irving Randolph	ChE	116	Yorkville
Ruckel, John Garland	Agr	551	Springfield
rucker, John Garrand	2191	222	Springpera

Pucker Herbert Indean	Agr	126	Jacksonville
Rucker, Herbert Judson			
Rue, Orlie	ME	37	Mattoon
Rueff, Joseph Alvin Rugg, Earle Underwood Ruhl, William Allen	ME		Oak Park
Ruen, Joseph Alvin			
Rugg, Earle Underwood	LA	261	Fitchburg, Mass.
Publ William Allen	Agr	34	
Rum, William Allen	719'	37	Baltimore, Md.
Rukin, Max	BLA	21	Cleveland, Ohio
	Agr	1211	Oregon
Rumery, Fay Rundles, Charles Morton			
Rundles, Charles Morton	LA	25	Huntertown, Ind.
Rundles, Earl Rundles, Lloyd William	CE	1161	Huntartonn Ind
Rundies, Laii	CL		Huntertown, Ind. Huntertown, Ind.
Rundles, Lloyd William	EE	321	Huntertown, Ind.
Dunle Oliver	ME	85	Ctarling
Runk, Oliver		63	Sterling
Rush, Francis Edward	SS	8.3	Galesburg
Runk, Oliver Rush, Francis Edward Rush, Ira Leon Rush, Roy Leslie		83 57	
Rush, Ita Leon	A	3/	Minot, N. D.
Rush, Roy Leslie	LA	34	Council, Idaho
D 11 Farmer	TICA	٠,	
Russell, Frances	HSAgr		Urbana
Rust, Louis John	EE		Pekin
Des Des Des 11'			
Rusy, Ben Franklin	Agr		Chicago
Rutenber, Frances Marie	HSLA	34	Champaign
D il D i i i i i i i i i			
Ruth, Rowland William Ruth, Thomas Lenor	ME (SS)	41	Aurora
Ruth Thomas Lenor	7		San Jose
Total Calaba Dello	7 4		
Rutherford, Eugenia Elizabeth	L LA	59	Newman
Dutladge Burch Tenin	S		Chatsworth
Rutledge, Burch Irwin Ryther, Henry White Sackrider, Charles Norman Sackrison, Julius Alvin Sadler, Walter Clifford Saffell, Gladys Deforest		-	
Ryther, Henry White	ME	71	Chicago
Cashaidan Charles Namon	ME		T-1.5 3.5'-2.
Sackrider, Charles Norman		75	Ishpeming, Mich.
Sackrison, Julius Alvin	Agr sp	34	Batavia
C 11 TIT I CI'C 1			
Sadler, Walter Clifford	RCE	119	Elgin
Saffell Cladus Deforest	Mus sp HSS sp		Urbana
Saliell, Glady's Deloiest	MINS SP		
Sager, Anna Ellen Sailor, Ira Carl	HSS SD	34	Belvidere
Sailor Tra Carl	Agr	27	Cissna Park
Salloi, Ila Cali			
St. Lawrence, James R	Agr	<i>33</i> ½	Chicago
Colemanuclas Fred William			
Sakrzewsky, Fred William	Agr		Chicago
Salazar, Jose Urbano	Agr	75	Chihuahua, Mexico
Callabarra Earl Miller			
Salisbury, Lari Miller	BLA	20	Albion, Pa.
Salazar, Jose Urbano Salisbury, Earl Miller Salisbury, Ethel Imogene	LA	101	Woodstock
Outstand, Denes Thiogene			
Salisbury, George Washington	Agr	65	Astoria
Sallee Gordon Francis	ME		Litchfield
C 11 D M LINE			
Sallee, Roy Merridith	SS	68	Gerlaw
Sallee, Gordon Francis Sallee, Roy Merridith Sampson, Inez Estella	HSS	22	Washington
Sampson, Thez Estena		44	
Sampson, Lloyd Carson	L		Washington
Samuela Thomas Walter A P 1006			
Sampson, Lloyd Carson Samuels, Thomas Walter, A.B., 1906, A.M., 1912	_		
A.M., 1912	L	24	Carrollton
Comunican Danhard Adolford	EE	211	
Samuelson, Raphael Adelford		$\frac{31\frac{1}{2}}{99\frac{1}{2}}$	Elgin
Sandall, Ernest Eugene	Agr	99+	Burlington
Condora Coorgo Edward	Md	21	
Sanders, George Edward		31	Champaign
Sanders, George Edward Sanders, Laura Marie Sanders, Ralph Lloyd Sanford, Harriet Adelaide	HSS	101	Champaign
Conders Dolph I loud	CE	69	
Sanders, Kaiph Lloyd		09	Glasford
Sanford, Harriet Adelaide	HSLA		Danville
Sanadahl Cassas Stanley	CE	114	
Sangdahl, George Stanley			Chicago
Saperston, O Nathan Sargeant, Southworth Samuel	EE	75	St. Charles
Commont Couthwest Commet			
Sargeant, Southworth Samuel	L	81	Geneva
Savage, Arthur Dale	Agr	641	Champaign
Davage, Tittina Date	7 4		
Savage, Arthur Dale Savage, Lillian Waters	LA	81	Belleville
Savage, Marie	LA	35	Urbana
Davide, Marie		33	
Savage, William Elliott	Md		Belleville
Savage, William Elliott Saville, Edward William	Anr sh		Canton
Carrie, Luward William	Agr sp ChE		
Sawyer, Henry Greeley	CNE	55	Monmouth
Sawyer, Margaret	HSAgr	61	Norborne, Mo.
O C 11 117:11		02	
Sax, Carroll William	LA		Chicago
Saxton, Catherine Sayre, Charles Bovett Scales, Walter Howard	HSAgr	56	Pueblo, Colo.
Saxton, Catherine			
Sayre, Charles Bovett	Agr	115	Chicago
Scales Walter Howard	AE	76	Fort Worth, Tex.
Scares, Walter Howard			
Schaarman, Emil Ferdinand	LA sp	36	Edgington
Schadt Mahal Five	HSS	663	Leesburg, Ind.
Schadt, Mabel Eva		003	LEESDUTO. INC.
Schaefer, Edgar Frederick	LA		Quincy
Schaffer Otto George	LA		Quincy Lake Forget
Schaffer, Otto George	LA	611	Quincy Lake Forest
Schaefer, Edgar Frederick Schaffer, Otto George Schalck, Edward Michael			Quincy Lake Forest Chicago

	TTOT 4		
Schaller, Emma Eugenia	HSLA	66	Mendota
Schaller, Gilbert Simon	ME	28	Mendota
Cabaulin Coorge Marvin	Cer	28	Mazon
Schaulin, George Marvin Schecter, Ralph Wendell Scheele, Donald Charles		20	
Schecter, Ralph Wendell	LA		Danville
Scheele, Donald Charles	ME	36	Elgin
Scheid, Jacob Philip	SS	1314	Freeburg
Scheid, Jacob I himp	DT 4		
Scheidecker, Glenn W Smiley Schenck, Ralph Edwin	BLA	82	Sycamore
Schenck, Ralph Edwin	A $(SS)$	23	Urbana
Schetnitz, Hymen	BLA	381	Chicago
Schetintz, Hymen		302	
Schickendanz, Louis Herman Schiesswohl, Philip George Schiesswohl, Ralph Louis	ME		Chenoa
Schiesswohl, Philip George	BLA	28	Chicago
Cabingawahl Poloh Louis	BLA	2	Chicago
Schlesswohl, Raiph Louis		27	
Schiffbauer, Gretchen Schinnerer, Otto Paul	HSAgr sp		Benson
Schinnerer, Otto Paul	LA	103	Bay City, Mich.
Schlader, Edward Holmes	EE		Oak Park
Schlader, Edward Hollies			
Schlutius, Louise Gustava	LA (SS)	8	Gilman
Schmidt, Lorentz	A	1231	Clyde, Kansas
Colomidt Poul Mourin	BLA		Earlville
Schlutius, Louise Gustava Schmidt, Lorentz Schmidt, Paul Marvin			
Schmitz, Erwin Anthony Schmitz, Nicholas Joseph Schneider, Arthur Charles Schneider, Daniel Charles	CE	131	St. Louis, Mo.
Schmitz Nicholas Tosenh	EE	713	Madison, Wis.
Calmaidan Ambun Chamlas	ĈĒ		Galena
Schneider, Arthur Charles	CE		
Schneider, Daniel Charles	ME	54	Nokomis
Schneider, Henry Frank, A.B. (Cen-			
Schneider, Henry Frank, 11.D. (Och	SS		37 . 7
tral Wesleyan Coll.) 1910	22		Nokomis
Schnellhach, John Francis	MSE	1061	Dixon
Schnellbach, John Francis Schnitker, Roger Reed	S		Chrisman
Schintker, Roger Reed		200	
Schobinger, Eugene	MSE	37	Morgan Park
Schoessel, Carl Arthur	ME	114	Rock Island
Cahall Clarence	ChE (SS)	109	Watseka
Schobinger, Eugene Schoessel, Carl Arthur Scholl, Clarence Scholl, Raymond Stanley		107	
Scholl, Raymond Stanley	Agr		Pittsburgh, Pa.
Schoolcraft, Plascie Lafavette	LA (SS)	94	Chester
Schoonery Warren Pinney	Agr	120	Alhambra, Cal.
Schooliover, warren kippey	Zi y'		21thamora, Can
Schöpperle, Richard Joseph	Ch	64	Oil City, Pa.
	CT -L		
Schrader, William Louis	C.E. SD	/	Chicago
Schoolcraft, Plascie Lafayette Schoonover, Warren Rippey Schöpperle, Richard Joseph Schrader, William Louis	CE sp	7	Chicago Vardiarie Nah
	AE	82	Verdigris, Neb.
		82 69½	Verdigris, Neb. Joliet
	AE Agr	82 69½	Verdigris, Neb. Joliet
	AE Agr A	82	Verdigris, Neb. Joliet Mt. Carmel
	AE Agr A ME	82 69½	Verdigris, Neb. Joliet Mt. Carmel LaSalle
	AE Agr A	82 69½	Verdigris, Neb. Joliet Mt. Carmel
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto	AE Agr A ME Agr	82 69½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith	AE Agr A ME Agr BLA	82 69½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith	AE Agr A ME Agr BLA Md	82 69½ 117	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith	AE Agr A ME Agr BLA Md	82 69½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schueler, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George	AE Agr A ME Agr BLA Md Cer	82 69½ 117	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George	AE Agr A ME Agr BLA Md Cer ME	82 69½ 117	Verdigris, Neb. Joilet Mt. Carmel LaSalle Chicago Altamont Chicago Marscilles
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston	AE Agr A ME Agr BLA Md Cer	82 69½ 117	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston	AE Agr A ME Agr BLA Md Cer ME EE	82 69½ 117	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marseilles Clinton, Ia.
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuette, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston	AE Agr A ME Agr BLA Md Cer ME EE	82 69½ 117	Verdigris, Neb. Joilet Mt. Carmel LaSalle Chicago Altamont Chicago Marscilles
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schuelter, Herbert Schuette, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907	AE Agr A ME Agr BLA Md Cer ME EE	82 69½ 117	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Alfred	AE Agr A ME Agr BLA Md Cer ME EE Lb Agr	82 69½ 117 61 62	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwartze, Rudolph Alfred Schwartzkopf, Horace Valentine	AE Agr AGr BLA Md Cer ME EE Lb Agr	82 69½ 117 61 62	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwartze, Rudolph Alfred Schwartzkopf, Horace Valentine	AE Agr AGr BLA Md Cer ME EE Lb Agr	82 69½ 117 61 62	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago Peoria
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwartze, Rudolph Alfred Schwartzkopf, Horace Valentine	AE Agr A ME BLA Md Cer ME EE Lb Agr Agr Agr Agr Agr (SS)	82 69½ 117 61 62	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago Peoria
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwartze, Rudolph Alfred Schwartzkopf, Horace Valentine	AE Agr AA ME Agr BLA Md Cer ME EE Lb Agr Agr Agr Agr Agr Agr Agr Agr	61 62 28 45½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago Peoria
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwartze, Rudolph Alfred Schwartzkopf, Horace Valentine	AE Agr AA ME EE Lb Agr Agr Agr Agr Agr Agr Agr Agr Agr	82 69½ 117 61 62	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago Peoria Oak Park Oak
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Neva Augusta	AE Agr AA ME Agr BLA Md Cer ME EE Lb Agr Agr Agr Agr Agr Agr Agr Agr	61 62 28 45½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Neva Augusta	AE Agr Agr BLA Md Cer ME EE Lb Agr Agr Agr Agr Agr LCSS	82 69½ 117 61 62 28 45½ 75	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia. Knoxville Urbana Chicago Peoria Oak Park Urbana
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Neva Augusta	AE Agr Agr BLA MG Cer ME EE Lb Agr Agr Agr Agr EE LA SS	61 62 28 45½	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marseilles Clinton, Ia.  Knoxville Urbana Chicago Peoria Oak Park Oak Park Oak Park Berwyn
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schuyler, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Alfred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Neva Augusta	AE Agr AA ME BLA Md Cer BLA MA EE  Lb Agr	82 691 117 61 62 28 451 75 129	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marscilles Clinton, Ia.  Knoxville Urbana Chicago Peoria Oak Park Urbana Berwyn Paris
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schutter, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Affred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Clarence Vincent Scott, Robert Ashmore Scott, Robert Ashmore Scott, Robert Ashmore	AE Agr AA ME BLA Md Cer BLA MA EE  Lb Agr	82 69½ 117 61 62 28 45½ 75	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Altamont Chicago Marseilles Clinton, Ia.  Knoxville Urbana Chicago Peoria Oak Park Oak Park Oak Park Berwyn
Schrier, Emil Paul Schroeder, Glenn Wilson Schucker, Rudolph Wester Schueler, Herbert Schuelte, Otto Schuh, Darrel Smith Schumacher, Harry William Schurecht, Harry George Schutte, William George Schutte, William George Schutter, Andrew Livingston Schwartz, Louise Fenimore, A.B. (Knox Coll.) 1907 Schwartze, Rudolph Affred Schwarzkopf, Horace Valentine Schwing, Edward Albert Scott, Clarence Vincent Scott, Clarence Vincent Scott, Robert Ashmore Scott, Robert Ashmore Scott, Robert Ashmore	AE Agr Agr BLA Md Cer ME EE Lb Agr	82 691 117 61 62 28 451 75 129	Verdigris, Neb. Joliet Mt. Carmel LaSalle Chicago Cairo Allamont Chicago Marseilles Clinton, Ia.  Knoxville Urbana Chicago Peoria Oak Park Urbana Berwyn Paris Anderson, Ind.
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Seifried, Arthur George	Cer		Chicago
Seiler, George William	SS	128	Woodstock
Seifried, Arthur George Seiler, George William Seip, Ernest Walter Joseph	ME	98	Chicago
C-1 Contain	ME	129	Kodama, Saitama,
Sekine, Sentaro	DIL	167	
			Japan
Sellards, William Heine	Agr	15	Champaign
Sells, Simeon Wells Johnson	LA	13	LaGrange
Carala Anthon Tomason		10	Riverton
Semple, Arthur Truman	Agr	00	
Sendenbrugh, Edith Irene	LA	99	Champaign
Senneff, George Freeman	Agr	321	Rock Falls
Sense, William Joseph Senter, Lester Thomas	A	461	Watseka
Conton Loston Thomas	Agr	,02	Oakland
Senter, Lester Inomas		4001	
Severinghaus, Milton George Henry	BLA	100½	Chicago
Seward, Hiram Bricker	Agr		Indianapolis, Ind.
Sewell, Sidney Isaac	CerE	100	Belvidere
Caustan Francet I numarica	LA	291	Kempton
Seyster, Ernest Lawrence	La	472	
Seyster, Mildred Clayton	S	121	Kempton
Seyster, Mildred Clayton Shaffer, Charles Franklin	EE	30	Quincy
Shaffer, Rolla Fleming	Agr		Jeffersonville
Charley J. Fart Dage	ME	108	Saunemin
Shapland, Earl Page Sharman, Jnanendra Nath		100	Sunnemin
Sharman, Jnanendra Nath	LA sp	-	Calcutta, India
Sharp, Bertha Lee	LA	1343	Urbana
Sharp, Bertha Lee Shaw, Edward Byer	Md		Urbana
Character Dyer		66	
Shaw, Ellis Marsh Shaw, Harold Allen	AE	66	Rockford
Shaw, Harold Allen	Agr		Urbana
Shaw Hazel Vearsley A.B. 1907.			
A M 1000	Lb		Urbana
T.M., 1700		221	
Shawl, Ray Iris	Agr	321	Princeton
A.M., 1908 Shawl, Ray Iris Shedden, Donald Boyd Sheats, Frank Thomas	Agr		Elgin
Sheets, Frank Thomas	MSE	75	Palmyra, Mo.
Chasta A Vorner	BLA		Freeport
Sheetz, A vernon			
Sheetz, A Vernon Shelby, Edwin, Jr.	CE		New Orleans, La.
Sheldon, Henry Kellogg	EE	37	Sharpsburg
Sheldon Walter William	S		Winnebago
Sheldon, Walter William Sheldon, Warren Maxwell	1 000	671	
Sheidon, warren Maxwell	Agr		Sharpsburg
Shellabarger, David Stuart Shellabarger, William Lincoln, Jr.	BLA	26	Decatur
Shellabarger, William Lincoln, Tr.	ChE		Decatur
Shelton, Wilma	SS	97	Terre Haute. Ind.
Chan Wan Va		93	
Shen, Wen-Yu	Agr (SS)	93	Shantung, China
Shepard, Anna Lucile, A.B. (Iowa State Univ.) 1910			
State Univ.) 1910	Mus		Muscatine, Ia.
Shepperd, James Douglass Sherman, Carl Lee Shewhart, Walter Andrew Shields, Eugene Clifton Shields, Harold Johnson	EE	96	Peoria
Shepperu, James Douglass	CE		
Sherman, Carl Lee	CE	37	Sandoval
Shewhart, Walter Andrew	S	103	New Canton
Shields, Eugene Clifton	SS	207	Mazon
Shields Harold Johnson	ME	20	Sullivan, Ind.
Cli 11- T-1- F		20	
Shields, John Erwin	Agr		Lewiston
Shields, John P	AE	36	Washington, Ia.
Shields, Mrs. Mabel Hughes	SS	<b>5</b> 57	Mazon
Shipman William Davis	CF	57	Seattle, Wash.
Cit i T.	CC	24	
Shields, John P Shields, Mrs. Mabel Hughes Shipman, William Davis Shively, Jean Shively, Walter Scott Shobe, Claire Fletcher Shobe, Frank Dilling Shoemaler, Fred Clen	SS CE SS	24	Champaign
Shively, Walter Scott	ME	37	Chicago
Shohe Claire Fletcher	LA		Chicago
Chaba Crank Dilling	T	57	Urbana
Shore, Frank Dilling	L EE		
Shocinaker, 1 rea oren		89	Abingdon
Shonle, Horace Abbott	ChE	34	Tuscola
Shonts, Turrill Dean	BLA	28	South Bend, Ind.
Shoots, Turrill Dean Shook, Charles Harmon	AE	26	Champaign
Class II The Mean Control of the Con			
Shotwell, Ida Mae		693	Evanston
Shuck, Helen	HSS		
	LA		Urbana
Shultz, Edith Adeline	LA	92	
Shultz, Edith Adeline	LA LA		Chicago
Shultz, Edith Adeline Shultz, Hazel Marguerite	LA LA HSAgr	92 95	Chicago Rockford
Shultz, Hazel Marguerite Shulz, Ernest Rudolf	LA LA HSAgr Agr sp	95	Chicago Rockford Moscow, Russia
Shultz, Edith Adeline Shultz, Hazel Marguerite Shulz, Ernest Rudolf Siebens, Arthur Robert	LA LA HSAgr		Chicago Rockford
Shultz, Hazel Marguerite Shulz, Ernest Rudolf Siebens, Arthur Robert	LA LA HSAgr Agr sp Agr	95 32½	Chicago Rockford Moscow, Russia Minonk
Shultz, Hazel Marguerite Shulz, Ernest Rudolf	LA LA HSAgr Agr sp	95	Chicago Rockford Moscow, Russia

Siemen, Webb Mellin	A	131	St. Joseph, Mo.
Siemen, Webb Mellin Sievert, Carl William John	ChE (SS)	98	Blue Island
Sigerson, Wilfred Carl Silkman, John Mead Sill, Leo Lester	LA	67	Mason City
Silkman, John Mead	MnE	44	Baltimore, Md.
Sill. Leo Lester	Mus		Champaign
Simison, Farnest Newton	Agr sp		Chicago
Simmonds, Emry Seldon Simmons, Theodore Switzer Simms, William Henry Simon, Walter Henry	EE		Camp Point
Simmons, Theodore Switzer	Agr		St. Charles
Simms, William Henry	Agr	23	Gibson City
Simon, Walter Henry	A	36	Quincy Joliet
Simonich, John Lawrence	EE	73	Joliet
Simonich, John Lawrence Simons, Raymond Samuel	S	92	Chicago
Simonson, Guy Loraine Simpson, Arthur Moulton Simpson, George Eric	Ch (SS)	621	Downers Grove
Simpson, Arthur Moulton	ME	124	Chicago
Simpson, George Eric	Ch (SS)	102	Chicago
Sims, Clarence Edgar	ChE	35	Chicago
Sims Delhert Edward	LA		Newton
Sisam, Mrs. Cora Hutton Sizer, Albert Dann Sizer, Bruce Lucius	SS	130	Urbana
Sizer, Albert Dann	Agr	37 ½	Champaign
Sizer, Bruce Lucius	ME		Champaign
Skadden, Harvey Frank	A	60	Danville
Skemp, Samuel Charles	Agr (SS)	46	Maywood
Skiles, James Roy	SS	130	DeKalb
Skinner, Edward Ainsworth	$\boldsymbol{A}$	12	Oak Park
Skadden, Harvey Frank Skemp, Samuel Charles Skiles, James Roy Skinner, Edward Ainsworth Skinner, Hazel	LA		Garden City, Kan.
Skinner, John Knox Skinner, Winifred Voorhees Skoglund, Carl August	SS SS	111	Nashville
Skinner, Winifred Voorhees	SS	8	Nashville
Skoglund, Carl August	ME	103	Ishpeming, Mich.
Slack, Herbert Lee	CE	35	Chicago
Sladek, Edward Frank	Cer		Cicero
Sladek, Edward Frank Slater, Frank Charles Slater, Maynard Elmer	LA	71	Cherry Valley
Slater, Maynard Elmer	Agr	32	Belvidere
Slayton, Willis Francis	Agr		Benton Harbor, Mich
Slayton, Willis Francis Sloan, Fred Lewis	Agr sp CE (SS)		Ray
Smart, Kobert Lerov	CE (SS)	75	Davenport, Ia.
Smejkal, Frank John	Agr	91	Chicago
Smejkal, Frank John Smiley, Lionel David Smith, Adeline Mildred Smith, Mrs. Adelle Catherine	EE		Woodstock
Smith, Adeline Mildred	LA	43	Champaign
Smith, Mrs. Adelle Catherine	Mus sp		Richmond Beach,
			Wash.
Smith, Alfred Dale	EE	109	Champaign
Smith, Blanche Margaret	HSAgr	56	Urbana
Smith, Bertram, Ph.B. (Brown			
Univ.) 1910	Lb	10	Urbana
Smith, Bryce Dumond	Agr		Earlville
Smith, Charles Eugene	CE	17	Chicago
Smith, Cecil Weldon Smith, Donald Jenks Smith, Edwin Allan	MnE	113	Clifton
Smith, Donald Jenks	EE	74	Chicago
Smith, Edwin Allan	EE		Chicago
Smith, Elizabeth Moree	Mus	28	Urbana
Smith, Florence Mildred	HSAgr	55	Oak Park
Smith, George Walter, Jr. Smith, Georgiana Dieckmann	AE	491	Wilber, Nebr.
Smith, Georgiana Dieckmann	HSLA		Vandalia
Smith, Gladys May Smith, Harold Gilman	LA CE	65	Champaign
Smith, Harold Gilman	CE	23	Monmouth
Smith, Hazel	HSAgr	39	Urbana
Smith, Hazen Eager	Agr sp		Prattville, Als.
Smith, Hubert Argo	$A_{\perp}$		Urbana
Smith, Hazel Smith, Hazen Eager Smith, Hubert Argo Smith, Irene Fern	Ch		Red Bud
Smith, Julian Francis	Ch		Champaign
Smith, Leo Lloyd Smith, Leoti Vannie	Agr		Loda
Smith, Leoti Vannie	LA	31	Champaign
Smith, Lloyd Gaston	ME	110	Chicago
Smith, Lloyd Gaston Smith, Marquis Joseph	Agr HSAgr	72	Burdett, N. Y.
Smith, Mary Parnell	HSAgr		Cuba
Smith, Merle LeRoy	BLA		Freeport

Smith, Paul McCorkle			
C 1.1 D 1 36'11.	SS	109	Bloomington
	Agr	631	Lincoln
Contain Deserved Constant DC			
Smith, Paul Miller Smith, Raymond Stratton, B.S. (Pomona Coll.) 1907	Agr	192	Moorpark, Cal.
(Pomona Coll.) 1907			
Smith, Reuel Lhamon	ME	75	Champaign
C 'th D land T-			
Smith, Robert, Jr. Smith, Royal Lee	ME_	116	Chicago
Smith, Royal Lee	CerE	10	Detroit, Mich.
Smith Samuel Theodore	BLA	25	Conway, Ark.
Smith, Samuel Theodore	DELL		
Smith, Samuel Theodore Smith, Stanley Christopher Smith, Stewart Tracy	BLA	62	Clayton
Smith Stewart Tracy	AE	363	Rose Hill, Ia.
Cmith Ctuant Luther	Md	203	
Smith, Stuart Luthy			Pittsfield
Smith, Volney Potter	Agr	68 <del>1</del>	Yorkville
Smith Wilhelma 70e	LA	35	Champaign
Smith, Stuart Luthy Smith, Volney Potter Smith, Wilhelma Zoe Smith, Wilson Marshall		33	
Smith, Wilson Marshall	LA		Waverly
Smithson, Albert Thornton	A(SS)	731	Lacon
Smock, Alice Bernice Smoot, Elizabeth Ellice Snapp, Roscoe Raymond	HSAgr		Chicago
Sinder, Milee Definee		40	
Smoot, Elizabeth Ellice	Mus	45	Fithian
Snapp, Roscoe Raymond	Agr (SS)	1273	Findlay
Caiden Haward John			
Snider, Howard John	Agr	$91\frac{1}{2}$	New Richmond, O.
Snoddy, Raymond Leffel	L		Perrysville, Ind.
Snoody, Raymond Leffel Snook, John Donald	L ChE	41	Sidney
Corel Mary Trans. A D 1011	ONL	72	States
Snook, Vera Jessie, A.B., 1911, A.M., 1912	1.0		
A.M., 1912	Lb	1421	Ottawa
Snyder, Glenn Snyder, Logan Abraham Soderberg, Andrew Frederick	Agr		Billett
Silyder, Glein			
Snyder, Logan Abraham	Agr	55	Kankakee
Soderberg, Andrew Frederick	AE	120	Florence, Wis.
Commerce Minte Charter			
Solensen, Meis Chester	A	122	Monticello, Minn.
Soto, Raafael Arcangel, B.S., 1912	LA	146	Sabona Gr., P. R.
Souers, Marshall Ankeny	Agr (SS)	951	Das Maines Is
Soucis, Marshall Mikely			Des Moines, Ia. Bismark, N. Dak. Fargo, N. Dak.
Spalding, Burleigh Mason Spalding, Roscoe Conkling	A	1	Bismark, N. Dak.
Spalding, Roscoe Conkling	A	21	Fargo, N. Dak.
Spalding, Russell Albert	Agr	53½	Champaign
Sparding, Russen Albert	Ayr	222	
Sparling, Donald Carl	A		Hammond, Ind.
Spear, Elsie Travilla	HSS	66	Rock Falls
Spane Harry Coorgo	CC	0	
Spear, Harry George	SS	9	Assumption
Sparling, Donald Carl Spear, Elsie Travilla Spear, Harry George Speck, Roy Henry	A	16	
Spence Frederick Milton	A	16	Assumption Evansville, Ind.
Spence Frederick Milton	A EE	16 72	Assumption Evansville, Ind. Elmwood
Spence Frederick Milton	A EE A	16 72 102 <del>§</del>	Assumption Evansville, Ind. Elmwood Champaign
Spence Frederick Milton	A EE	16 72	Assumption Evansville, Ind. Elmwood
Spence Frederick Milton	A EE A Agr	16 72 102 <del>§</del> 32½	Assumption Evansville, Ind. Elmwood Champaign Lockport
Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler. Clarke H	A EE A Agr BLA	16 72 102 <del>5</del> 32 <del>1</del> 99	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan
Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler. Clarke H	A EE A Agr BLA LA	16 72 102 <del>§</del> 32½ 99 61	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign
Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler. Clarke H	A EE A Agr BLA LA	16 72 102 <del>§</del> 32½ 99 61	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign
Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler. Clarke H	A EE A Agr BLA LA AE (SS)	16 72 1025 321 99 61 75	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sponlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS)	16 72 102 <del>§</del> 32½ 99 61	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia.
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS) A AE	16 72 1025 321 99 61 75	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind.
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS) A AE	16 72 1025 321 99 61 75	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind.
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS) A AE Agr sp	16 72 1025 32½ 99 61 75	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS) A AE Agr sp SS	16 72 1025 32½ 99 61 75 69	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME	16 72 1025 32½ 99 61 75 69	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME	16 72 1025 32½ 99 61 75 69	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME Agr	16 72 1025 32½ 99 61 75 69	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A EE A Agr BLA LA AE (SS) A AGr SS ME Agr Agr	16 72 1025 32½ 99 61 75 69	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Champaign Champaign Chocago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A BE A Agr BLA LA AE (SS) A AE AGr AGr AGr AGr ChE	16 72 1025 32½ 99 61 75 69 78 60 30 65½	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A BE A Agr BLA LA AE (SS) A AE AGr AGr AGr AGr ChE	16 72 1025 32½ 99 61 75 69 78 60 30 65½	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A EE EA Agr BLA LA AE (SS) A AE SS ME Agr	16 72 102 102 32 99 61 75 69 78 60 30 65 2	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat Fielding Rond	A EE A Agr BLA LA AE AGr SS SS ME Agr Agr ChE MnE LA	16 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria
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Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stabl. Walter Andrew	A Agr BLA LA AE (SS) A AGR AGR AGR AGR AGR AGR AGR AGR AGR A	16 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60 6	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago
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Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stabl. Walter Andrew	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME Agr Agr Che LA ME LA MAE Agr	76 72 102 102 102 102 102 103 104 104 104 128	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stabl. Walter Andrew	A EE A Agr BLA LA AE (SS) A AE AGr SS ME Agr Agr Agr Agr LA AE Agr LA AGS ME LA LA LA AE AGS ME LA AGS ME LA AGS AGS AGS AGS AGS AGS AGS AGS AGS AG	16 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60 6	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer
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Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Vesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stahl, Walter Andrew Stallings, Leland Stanford Stambaugh, Fred Minton Stanberry, Jesse Oscar Stanberry, Stanley Ray	A EE A Agr BLA LA AE AGF SS ME AGF AGF AGF AGF LA ME LA AGF LA ME ME ME	76 72 102 102 102 102 102 103 104 104 104 104 104 104 104 104 104 104	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Champaign Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Clicago Granite City Deland Homer Mason City, Ia.
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Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Fred Minton Stanbery, Jesse Oscar Stanbery, Stanley Ray Stark, John Edwin	A EE A Agr BLA LA AE AGF SS ME AGF AGF AGF AGF LA ME LA AGF LA ME ME ME	76 72 102 102 102 102 102 103 104 104 104 104 104 104 104 104 104 104	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Fred Minton Stanbery, Jesse Oscar Stanbery, Stanley Ray Stark, John Edwin	A EE A Agr BLA LA AE (SS) A AE Agr Agr Agr Agr ChE MnE LA Agr L sp SS ME SS ME SS SS SS ME SS ME SS SS	76 102 \$ 32 ½ 99 61 75 69 78 60 30 65 ½ 7 76 60 60 60 60 60 60 60 60 60 60 60 60 60	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum
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Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Stabler, Vesse Lee Stacheli, Otto Stafford, Herbert Stanley Levin Stahl, Walter Andrew Stahl, Walter Andrew Stallings, Leland Stanford Stambarry, Jesse Oscar Stanberry, Stanley Ray Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis Statarrett. David Burnham	A EE A Agr BLA LA AE AGr SS ME Agr ChE LA MGr AGr LA MGr LA MGr LA MGr LA MGR SS SS ME LA Agr	76 102 \$ 32 ½ 99 61 75 69 78 60 30 65 ½ 77 60 6 104 ½ 28 9	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind.
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Stabler, Vesse Lee Stacheli, Otto Stafford, Herbert Stanley Levin Stahl, Walter Andrew Stahl, Walter Andrew Stallings, Leland Stanford Stambarry, Jesse Oscar Stanberry, Stanley Ray Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis Statarrett. David Burnham	A EE A Agr BLA LA AE AGr SS ME Agr ChE LA MGr AGr LA MGr LA MGr LA MGr LA MGR SS SS ME LA Agr	76 1028 322 99 61 75 69 78 60 30 652 77 60 6 1041 28 9	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Clicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind. Decatur Elgin
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Stabler, Vesse Lee Stacheli, Otto Stafford, Herbert Stanley Levin Stahl, Walter Andrew Stahl, Walter Andrew Stallings, Leland Stanford Stambarry, Jesse Oscar Stanberry, Stanley Ray Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis Statarrett. David Burnham	A  A  A  A  A  A  A  A  A  A  A  A  A	76 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60 60 30 65½ 77 60 60 30 65½ 77 60 60 60 60 60 60 60 60 60 60 60 60 60	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind. Decatur Elgin Urbana
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Stabler, Vesse Lee Stacheli, Otto Stafford, Herbert Stanley Levin Stahl, Walter Andrew Stahl, Walter Andrew Stallings, Leland Stanford Stambarry, Jesse Oscar Stanberry, Stanley Ray Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis Statarrett. David Burnham	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME Agr Agr ChE MnE LA Agr L sp SS ME SS ME Agr L sp SS ME Agr L sp SS ME Agr L sp SS ME LA Agr L sp LA	76 1028 322 99 61 75 69 78 60 30 652 77 60 6 1041 28 9	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind. Decatur Elgin Urbana Ronkin
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Stabler, Vesse Lee Stacheli, Otto Stafford, Herbert Stanley Levin Stahl, Walter Andrew Stahl, Walter Andrew Stallings, Leland Stanford Stambarry, Jesse Oscar Stanberry, Stanley Ray Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis Statarrett. David Burnham	A EE A Agr BLA LA AE (SS) A AE Agr sp SS ME Agr Agr ChE MnE LA Agr L sp SS ME SS ME Agr L sp SS ME Agr L sp SS ME Agr L sp SS ME LA Agr L sp LA	76 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60 60 30 65½ 77 60 60 30 65½ 77 60 60 60 60 60 60 60 60 60 60 60 60 60	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind. Decatur Elgin Urbana Ronkin
Speck, Roy Henry Spence, Frederick Milton Spencer, Charles Blakley Spencer, Victor Elwin Spitler, Clarke H Sponsel, Mrs. Eleanor Aldrich Sporlein, Louis Wolfgang Sprague, Harold Greene Spraker, Glen Allen Springer, Jonathan Lee Sprowls, Luna Lenore Squier, Leon Walter Staat, Fielding Bond Stabler, Tesse Lee Staeheli, Otto Stafford, Herbert Stanley Levin Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Myrtle Lois Stahl, Fred Minton Stanbaugh, Fred Minton Stanberry, Jesse Oscar Stannery, Stanley Ray Stark, John Edwin Starkey, Albert Lyle Starner, Verner Starr, Bernice Fallis	A  A  A  A  A  A  A  A  A  A  A  A  A	76 72 102§ 32½ 99 61 75 69 78 60 30 65½ 77 60 60 30 65½ 77 60 60 30 65½ 77 60 60 60 60 60 60 60 60 60 60 60 60 60	Assumption Evansville, Ind. Elmwood Champaign Lockport Sullivan Chicago Des Moines, Ia. Kokomo, Ind. Averyville Gibson City Rockford Monmouth Neponset Chicago Hubbard Woods Victoria Chicago Granite City Deland Homer Mason City, Ia. Urbana Pestotum Carlisle, Ind. Decatur Elgin Urbana

Stebbins, Selden Lewis			
	EE	81	Chicago
Stoole Lettie Emily	Agr	98	Galesburg
Steele, Lottle Limity			
Steele, Lottie Emily Steele, Theron Broder Steif, Benjamin Leo	Agr	78	Robinson
Steif, Benjamin Leo	A		Chicago
Stein, Max Julian Steinbreder, William John Steinmayer, Alwin Gustav Steinmayer, Reinhard A, Jr.	Agr sp	33	Chicago
Stelli, Max Julian	CC SP		Ch 7
Steinbreder, William John	SS EE	143	St. Louis, Mo.
Steinmayer, Alwin Gustav	EE		LaSalle
Steinmauer Deinhard A Tr	CerE		LaSalle
Stellinayer, Kellinard A, Jr.			
Steinmeyer, Herbert August	BLA	47	St. Louis, Mo.
Stene, Ole	ChE		Elgin
Stonbons Ethal Cartrude	22	225	Murphysboro
Stephens, Ethel Gertrude Stephens, Nora Ruth	SS LA	228	
Stephens, Nora Ruth	LA		Browns
Stephens, Roger Lewis Stephens, Warren Russell	L	40	Robinson
Ctantana Wanna Danasti	ī		Urbana
Stephens, warren Russen		16	
Sterenberg, Bert Ludeus Sterling, George Edward Stevens, Alexander Henry	Agr	33	Fulton
Sterling George Edward	AE		Manitowoc, Wis.
Change Alamadan Hanna	CE		
Stevens, Alexander Henry			Chicago
	Mus	98 <del>1</del>	Urbana
Stevens, Homer Stevens, Raymond Monroe Stevens, Richard William	Agr sp		Fairland
C. D. 136		0.01	Courses M V
Stevens, Raymond Monroe	A	$95\frac{1}{2}$	Syracuse, IV. I.
Stevens, Richard William	Agr	26	Syracuse, N. Y. Joliet
Stevens Sahra Flizabeth A B 1906	Lb	168	Mahomet
Stevens, Sabra Elizabeth, A.B., 1906 Stevens, Vernon Thompson Stevens, Wayne McKenzie Stevens, Wentworth Holt	Dr 4		
Stevens, Vernon Thompson	BLA	52	Joliet
Stevens, Wayne McKenzie	Agr	37	Taylorville
Ctours Westworth Helt	Ann	751	Urbana
Stevens, Wentworth Holt	Agr		
Stevenson, Augustus George	M a	28	Harvey
Stevenson, Cohn Ayres Stevenson, James Stevenson, James Vail, A.B., 1912 Stever, Mildred Pearl	ME	591	Chicago
Ct T		072	Chicago
Stevenson, James	Cer		
Stevenson, James Vail, A.B., 1912	Agr HSAgr	1521	Streator Henry
Stever Mildred Pearl	HSAge		Henry
Stever, Milarea reali			Oak Hawhan Wash
Stewart, Allen	Agr		Oak Harbor, Wash.
Stewart, Earle Henry	RME	36	St. Louis, Mo.
Stewart Harold Burton	A	126	Oak Harbor, Wash.
Stewart, Allen Stewart, Earle Henry Stewart, Harold Burton	°C C		The barre
Stice, Henry Sylvester	SS	43	Urbana
Stice, Kenneth Seymour	CerE	9	Urbana
Stickler John Harrison	Cer		Canton
	CCI		
Stickney, Ida Meribeth, A.B. (Beloit	Cer		
Stickney, Ida Meribeth, A.B. (Beloit			Warren
Stickler, John Harrison Stickney, Ida Meribeth, A.B. (Beloit Coll.) 1904	Lb	72	Warren
Stinson, Lavinia Shriver	Lb HSLA	72	Macomb
Stinson, Lavinia Shriver	Lb HSLA Mus	72 34	
Stinson, Lavinia Shriver Stipp, Blanche	Lb HSLA Mus	34	Macomb Champaign
Stipp, Blanche Stipp, Frank Vennum	Lb HSLA Mus	34 115 <del>1</del>	Macomb Champaign Champaign
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear	Lb HSLA Mus S CE	34 115½ 3	Macomb Champaign Champaign Chicago
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE	34 115 <del>1</del>	Macomb Champaign Champaign
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE EE	34 115½ 3	Macomb Champaign Champaign Chicago Morgan Park
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE EE CE	34 115½ 3 79	Macomb Champaign Champaign Chicago Morgan Park Highland
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE EE CE HSAgr	34 115½ 3	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE EE CE	34 115½ 3 79	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt. Raymond DeVries	Lb HSLA Mus S CE EE CE HSAgr ME	34 115½ 3 79	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie	Lb HSLA Mus S CE EE CE HSAgr ME HSLA	34 115½ 3 79 14	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten	Lb HSLA Mus S CE EE CF HSAgr ME HSLA AE	34 115½ 3 79 14	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten	Lb HSLA Mus S CE EE CE HSAgr ME HSLA	34 115½ 3 79 14 93 4 80	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten	Lb HSLA Mus S CE EE CE HSAgr ME HSLA AE A	34 115½ 3 79 14 93 4 80	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy	Lb HSLA Mus S CE EE CE HSAgr ME HSLA AE A	34 115½ 3 79 14 93 4 80 67¾	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane	Lb HSLA Mus S CE EE CE HSAgr ME HSLA AE Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34¾	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane	Lb HSLA Mus S CE EE CE HSAgr ME HSLA AE Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34¾	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield	Lb HSLA Mus S CE EE CE HSAgr ME HSLA AE A Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr Agr Agr Agr sp	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr LA Agr LA Agr sp MSE	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein	Lb HSLA Mus SCE EE CCE HSAgr ME HSLA AE A Agr Agr LA Agr sp MSE ME	34 115½ 3 79 14 93 4 80 67½ 34½ 35	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stocks, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd	Lb HSLA Mus SCE EE CCE HSAgr ME HSLA AE A Agr Agr LA Agr sp MSE ME	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AB Agr Agr Agr LA Agr Agr MSE ME MSE MSE	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stouth, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando	Lb HSLA Mus S CE EE CE HSAgr ME HSLA Agr Agr LA Agr LA Agr MSE MSE HSAgr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfeld Shabbona Overland Park, Ksn. Freeport Greenville Mahomet
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storey, Debert Lese	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AB Agr Agr Agr LA Agr Agr MSE ME MSE MSE	34 115½ 3 79 14 93 4 80 67½ 34 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Frecport Greenville Mahomet Antioch
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storey, Debert Lese	Lb HSLA Mus S CE EE CE HSAgr ME HSLA Agr Agr Agr Agr Agr MSE MSE MSE HSAgr Agr sp Agr sp	34 115½ 3 79 14 93 4 80 67½ 34 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Frecport Greenville Mahomet Antioch
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr LA Agr LA Agr Agr Sp MSE MSE MSE MSAgr Agr Agr Agr Agr Agr Agr Agr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Ksn. Freeport Greenville Mahomet Antioch Pekin
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus S CE EE CE HSAgr ME HSLA Agr Agr LA Agr Agr LA Agr MSE ME HSAgr Agr Agr Agr Agr Agr Agr Agr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Freeport Greenville Mahomet Antioch Pekin Chicago
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus S CE EE CE HSAgr ME HSLA Agr Agr LA Agr Agr LA Agr MSE ME HSAgr Agr Agr Agr Agr Agr Agr Agr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Frecport Greenville Mahomet Anticago Pkin Chicago Evansville, Ind.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus S CE EE CE HSAgr ME HSLA Agr Agr LA Agr Agr LA Agr MSE ME HSAgr Agr Agr Agr Agr Agr Agr Agr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Macomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Frecport Greenville Mahomet Anticago Pkin Chicago Evansville, Ind.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus S CE EE CCE HSAgr ME HSLA Agr LA Agr LA Agr MSE ME HSAgr Agr HSLA Agr Agr LA Agr Agr LA Agr Agr Agr LA Agr Agr LA Agr Agr Agr LA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont.
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Storer, Debert Lese	Lb HSLA Mus SCE EE CCE HSAgr ME HSLA Agr Agr LA Agr Agr LA Agr MSE MSE HSAgr Agr Agr Agr Agr Agr Agr Agr Agr Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont. Waukegan
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Strang, Robert Leon Strathman, John Herman Stratton, Bernice Elizabeth Stratton, Grace Bruce Stratton, William Thomas Streed, Elise Judith Streff, Harold Peter	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr LA Agr LA Agr Agr Agr LA Agr Agr LA Agr Agr HSLA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Ksn. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont. Waukegan Chicago
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Strang, Robert Leon Strathman, John Herman Stratton, Bernice Elizabeth Stratton, Grace Bruce Stratton, William Thomas Streed, Elise Judith Streff, Harold Peter	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr LA Agr LA Agr Agr Agr LA Agr Agr LA Agr Agr HSLA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont. Waukegan
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Strang, Robert Leon Strathman, John Herman Stratton, Bernice Elizabeth Stratton, Grace Bruce Stratton, William Thomas Streed, Elsie Judith Streff, Harold Peter Strehlow, Paul Valentine	Lb HSLA Mus S CE EE CCE HSAgr MSLA AGr Agr LA Agr Agr LA Agr Agr Sp MSE HSAgr Agr sp Agr sp Agr sp Agr	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37 34 28½ 5 66½ 25 114	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Kan. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont. Waukegan Chicago Peoria
Stinson, Lavinia Shriver Stipp, Blanche Stipp, Frank Vennum Stirton, James Crear Stitt, Raymond DeVries Stocker, Harry Frederick Stockes, Mary Belle Stokes, Louis O'Connor Stoltey, Marie Jennie Stone, Albert Getten Stone, Othello Raymond Stone, Tom Candy Stonier, Don Duane Stopp, Gerald Darfield Storey, Lester John Stough, Glenn Howenstein Stout, Earl Boyd Stoutzenberg, Florence Thomas Stover, Orville Orlando Strang, Robert Leon Strathman, John Herman Stratton, Bernice Elizabeth Stratton, Grace Bruce Stratton, William Thomas Streed, Elise Judith Streff, Harold Peter	Lb HSLA Mus S CE EE EE HSAgr ME HSLA AE A Agr LA Agr LA Agr Agr Agr LA Agr Agr LA Agr Agr HSLA Agr Agr Agr Agr Agr Agr Agr Agr Agr Ag	34 115½ 3 79 14 93 4 80 67½ 34½ 35 24 109½ 37	Maccomb Champaign Champaign Chicago Morgan Park Highland Garden City, Kan. Anna Champaign Chicago Urbana Stonington Urbana Plainfield Shabbona Overland Park, Ksn. Freeport Greenville Mahomet Antioch Pekin Chicago Evansville, Ind. Stevensville, Mont. Waukegan Chicago

C. J. 11 Day Malana	4	20	772
Strickland, Ray Malcom	Agr	30	Urbana
Strock, Faraday James	CE	37	Sterling
Stroheker, Frank Sewald	LA (SS)	783	Barry
Strong, Arthur Crist Strong, Charles Howard	L	28	Urbana
Charles Hamand	BLA		Earlsville
Strong, Charles Floward		28	
Strong, George Woodworth	Agr sp	32	Joliet
Strong, Harry Danford	Agr	58	Keithsburg
Strong, Olive French Strong, Robert Ambrose	LA	30	Canton
Ctarra Dalant Ambarra	ME		Court Dand Ind
Strong, Robert Ambrose		37	South Bend, Ind.
Strong, Truman Jefferson Strong, William Augustus	A	101	Spokane, Wash.
Strong William Augustus	S	70	Joliet
Strubanaling Irona Alica	HSAgr	10	Chicago
Struhsacker, Irene Alice Stubblefield, Benjamin Harrison			
Stubbleheld, Benjamin Harrison	Agr	351	Bloomington
Stumpf, Elmer Henry	BLA		Chicago
Sudduth, Kenwood Titus	Agr sp	1	
Suffern, Emmette Palmer	BLA	-	Atwood
Sullivan, Nicholas Cyril	CerE	24	Chicago
Summers, Abel Ross Summers, Henry Elmer Sundell, Dean Harold	EE	413	Des Moines, Ia.
Summers Henry Filmer	Agr sp (SS)	71	Opdyke
Caralan Day Transla	DI A	12	
Sundell, Dean Harold	BLA		Mason City, Ia.
Sunderland, Emily Kingman	HSLA	75 <sup>2</sup> / <sub>3</sub>	Delavan
Supple, Margaret	SS	471	Danville
	Agr	861	Sakha, Egypt
Suryieh, Izzet Basili			
Suter, Earl Ray	EE	74	Golden
Sutherland, George Fred	S (SS)	101	Grand Island, Neb.
Sutherland, Wilbur Mills	Agr		McNabb
	Ch		
Suto, Ko			Niitsu, Japan
Sutton, Frank Howard	BLA		Chicago
Swannell, William Laurence	EE	43	Kankakee
Swannell, William Laurence Swanson, Claude Magnus	L (SS)	37	Ludlow
Swallson, Claude Magnus	7 (33)	31	
Swanson, Frances Eleanor	LA		Urbana
Swanson, Frederick Curtis	LA	86	Urbana
Swanson, Norvid Raymond	Agr		St. Charles
Swanson, Norvid Raymond Swanson, Ralph Arthur	Cer		Streator
Swanson, Raiph Arthur			
Swartwout, Edgar Chessman	Agr		Elgin
Swartz, Leon Frank	Agr F.E (SS)	16	Urbana
Sweeney, Perry Jerome	EE (SS)	40	Caledonia
Sweitzer John Willard	Toh	, ,	Morton
Sweitzer, John Willard	L sp CE		
Sweeney. Perry Jerome Sweitzer, John Willard Swenson, Edwin Henry	CE	111	Chicago
Swett, Leslie Wells Swett, Lewis Wentworth Swick, Mary Ethel Swick, Nellie May	MnE	891	Blue Island
Swett Lewis Wentworth	EE	10	Springfield
Contain Mana Eshal			Ilebene
Swick, Mary Ethel	LA (SS)	28	Urbana
Swick, Nellie May	LA		Urbana
Swickard, Earl Oscar Swigart, Wayne Hugh Swigert, Blanche Belle	BLA	27	Newman
Swigart Wayne Hugh			Farmer City
Swigart, Wayne Hugh	Agr sp LA sp		
Swigert, Blanche Belle	LA SP		Rapatee
	LA		Terre Haute, Ind.
Switzer, Theodore Ernest Swope, Russell Claude Sykes, James Thorburn Sykes, Webster Taber, Bayard Freeman	L LA	19	Macomb
Swape Puscell Claude	T A	37	Kankakee
Swope, Russell Claude	CC		
Sykes, James Thorburn	SS	471	Beverly
Sykes, Webster	Agr sp		Baylis
Taber Bayard Freeman			
Tancet Frank Is		105	Hehana
	A	105	Urbana
Taggert, Training	A Agr	671	
Talbert, Harold Arthur	A		
Talbert, Harold Arthur Talbot, Mildred Virginia, A.B., 1912	A Agr BLA	671	Wooster, O. Garrett, Ind.
Taggart, Frank, Jr. Talbert, Harold Arthur Talbot, Mildred Virginia, A.B., 1912	A Agr BLA LA	671	Wooster, O. Garrett, Ind. Urbana
Talbert, Harold Arthur Talbot, Mildred Virginia, A.B., 1912 Tanner, John Riley	A Agr BLA LA A	671	Wooster, O. Garrett, Ind. Urbana Springfield
Tanner, John Riley Tanner, Thomas	A Agr BLA LA A A	67½ 35	Wooster, O. Garrett, Ind. Urbana Springfield Dwight
Tanner, John Riley Tanner, Thomas	A Agr BLA LA A	671	Wooster, O. Garrett, Ind. Urbana Springfield Dwight
Tanner, John Riley Tanner, Thomas	A Agr BLA LA A AE A	67½ 35	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria
Tanner, John Riley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson	A Agr BLA LA A AE A Agr	67½ 35	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark.
Tanner, John Kiley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stenhen	A Agr BLA LA A AE A Agr SS	67½ 35 63 128 95	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago
Tanner, John Kiley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stenhen	A Agr BLA LA A AE A Agr SS EE	67½ 35	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago
Tanner, John Kiley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stenhen	A Agr BLA LA A AE A Agr SS EE	67½ 35 63 128 95	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago
Tanner, John Kiley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stenhen	A Agr BLA LA A AE A Agr SS EE	67½ 35 63 128 95 76 54	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago Chicago
Tanner, John Kiley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stenhen	A Agr BLA LA AE AE Agr SS EE L Agr (SS)	67½ 35	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago La Junta, Colo.
Tanner, John Riley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stephen Tarracciano, Alexander Eli Tate, Fred Reeves Tate, James Alfred Taubeneck, Victor Everett	A Agr BLA LA AE Agr SS EE L Agr (SS) EE	67½ 35 63 128 95 76 54 50	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago Chicago La Junta, Colo. Marshall
Tanner, John Riley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stephen Tarracciano, Alexander Eli Tate, Fred Reeves Tate, James Alfred Taubeneck, Victor Everett Taylor, Arthur Cullen	A Agr BLA LA A AE A Agr SS EE L Agr (SS) EEE	67½ 35 63 128 95 76 54	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago Chicago La Junta, Colo. Marshall Cincinnati, O.
Tanner, John Riley Tanner, Thomas Tapping, Charles Hawley Tarble, Charles Nelson Tarnoski, Alexander Stephen Tarracciano, Alexander Eli Tate, Fred Reeves Tate, James Alfred Taubeneck, Victor Everett	A Agr BLA LA AE Agr SS EE L Agr (SS) EE	67½ 35 63 128 95 76 54 50	Wooster, O. Garrett, Ind. Urbana Springfield Dwight Peoria Hot Springs, Ark. Chicago Chicago Chicago La Junta, Colo. Marshall

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ne - b - th Rovers	SS	1041	Lancaster, Wis.	
Taylor, Elizabeth Boyers	S	2	Braceville	
Taylor, Everett Harvey Taylor, Everett Harvey Taylor, Ferdinand James Taylor, Horace Albert, Jr. Taylor, Hazel Emma Taylor, Marcus Prevost	22	20	Metropolis	
Taylor, Ferdinand Jan. Ir.	L sp HSAgr		Chicago	
Taylor, Horace Mibert,	HSAgr	108	Alton	
Taylor, Hazer Emine	CE SS	981	Chicago	
Taylor, Marcus Trevos	22	59	Tlehana	
Taylor, Margaret  Cornelius	CE	37	Louisville, Ky.	
Taylor, Willo Collicate	Ch		Charaon, U.	
Taylor, Moillis R	EE		Bemen:	
Taylor, Raiph Blace	A	1113	Bement	
Taylor, Margaret Taylor, Milo Cornelius Taylor, Morris R Taylor, Rosris R Taylor, Ralph Bridgeman Taylor, Ross Wallace Taylor, Scott Champlin Taylor, William Lincoln, Taylor, William Mitchell Tear, Henry Raymond Telfer, George Averna	ChE	29	Geneseo	
Taylor, Scott Champs	L	139	Lancaster, Wis.	
Taylor, Thomas Lincoln, A.B., 191	2 Agr	57	Champaign	
Taylor, William Mitchell	Agr	831	Chicago	
Taylor, William Raymond	EE Md	30	Litchfield	
Tear, George Averna Telfer, George Hulit	CLE		Canton	
Tendick, Frank Hulit		99	Canton, China	
Tendick, Frank	LA			
Teng, Kwangtang Terrell, Lucille Spotswood, A.B (Tulone Univ.) 1903 The Will Clarence Thomas	Lb		Roanoke, Va.	
Terrell, Linin, 1903	I U		Atwood	
Till Clarence Thomas	L LA		Indianapolis, Ind.	
(Tulone Onto.) Domas Terrill, Clarence Thomas Terry, Robert Isaac Thal, Olga Elizabeth The Dewlitt Wesley	LA (SS)	8	Champaign	
Terry, Robert Lath		35	St. Charles	
Thai, Olga DeWitt Wesley	Agr sp LA	99	Chicago	
Thal, Olga Elizabeth Thatcher, DeWitt Wesley Thayer, Cleaver Thayer, Helen There Thaxter Crugier, A.	SS		Evanston	
Thayer, Cicavo			Cal	
Thayer, Helen Crugier, A.	B. Lb		Vacaville, Cal.	
Thayer, Wisconsin) 1911	LA	101	Camp Point	
Margaret Katherine	CE	6	Batavia	
Thellen, Malbert Peter Victor	A		Ramsey	
Thayer, Thaxter Crugett, The Curve, Wisconsin 1911 Theilen, Margaret Katherine Thelander, Albert Peter Victor Thiele, Ross Henry Thiele, Ross Henry	Mus		Monticello	
Thiele, Ross and Bertheata	Agr		Urbana	
Thiele, Ross Henry Thielke, Maude Bertheata Thomas, Abner Royce Charles Fredrick	Md		Argenta	3
Thomas, Charles Fredrick Thomas, Clair Joel Thomas, Emil Warren Thomas, Elen Herbert	Agr		LaHarpe	,
Thomas Clair Toel	ME	24	Woodstock Waterville, Kan. Vincennes, Ind. Newport, Ind.	
Thomas Emil Warren	A sp		Waterville, Ind.	
Thomas, Emil Warren Thomas, Glen Herbert Thomas, John Mifflin Thomas, Leslie Norwood Thomas, Lyle Thomas, Marie Anna Thomas, Maurice Loyd Thomas, Melvin	ME	77	Vincennes, Ind	
Thomas John Mifflin	ME		Newport, 11.d.	
Thomas Leslie Norwood	LA	64	Lewision	
Thomas Lyle	LA	31	San Jose St. Louis. Mo.	
Thomas, Marie Anna	EE	4		
Thomas, Maurice Loyd	Agr sp	81		
Thomas, Melvin	LA		Urbana St. Louis, Mo.	
Dally killzanetu	EE	2		
Thomas, Ralph Raymond Thomas, Robert Ellsworth Thomas, Victor Christian Thomas, Victor Christian	CE	50	Rockford	
Thomas, Robert Ellsworth	Agr st	,	Chicago Chicago	
Thomas, Victor Christian	Agr (S	SS) 92	Springfield	
Thomas, Victor Christian Thomason, Jay Francis Thompson, Alfred Franklin Thompson, Charles Henry Thompson, Fleta	EE			
Thompson, Alfred Franklin	EE CE	81		
Thompson, Charles Henry	HSLA	64		
Thompson, Fleta Thompson, Francis	SS	55	Anna	
Thompson, Francis	FE	10		
Thompson, Francis Thompson, George Thompson, Harwell Cloud Thompson, Harold Earle Thompson, Herbert Percy	BLA	(SS) 10	Climan	
Thompson, Harwell Cloud	EE	/		
Thompson, Harold Earle	22	15		
Thompson, Herbert Percy Thompson, Hohn Charles	Agr (	(SS) 2	Saybrook	
Thompson, John Charles	LA		Chicago	
Thompson, John Charles Thompson, Lee E Thompson, Lillian Maud Thompson Orin Griswold	HSL.	A	Springfield	
Thompson, Lillian Maud	Agr		Harvey	
Thompson, Orin Griswold Thompson, Orlando Stephen	Agr		Tlehana	
	Mus		Thomasth Inda	
Thompson, Ruth Etta Thompson, Arthur William	AE	(00)		Arg.
Thomson, Arthur William	EE (	(SS)	67 Buenos Aires, 7 Chicago	
Thompson, Arthur William Thomson, Charles Sarmiento Thomson, Clara Louise	SS		/ Chicago	
Thorndike, Clara Louise				

Thorne, Frank Hilton	ME	351	Berwyn
The Table Town			
Thorne, Laurence Emerson	Agr	33	Huntington, Ind.
Thorne, Mabel Elizabeth Thorpe, William Frederick	5	103	Huntington, Ind.
The see Militian Parisi			
I horpe, William Frederick	Agr	13	Chicago
Thrasher, Marvin Allen	SS	273	Salem
TT1 - 21 - 21 C2 1 TY 41'			
Intelkela, Clyde Hollis	BLA (SS)	94	Decatur
Threlkeld, Clyde Hollis Thurston, Henry Winfred, Jr. Tibbits, Douglas Deforest	Agr	311	New Milford, N. J.
Titl it. Develor D. Course			
Libbits, Douglas Deforest	Agr	78 <del>1</del>	Urbana
Tiedemann, Edwin Wylde	Agr	25	St. Louis, Mo. Roswell, N. Mex.
Tillotson, Bess Mae Tillson, Arthur Edward Tilton, Kenneth Dale		23	7) 11 37 36
Illiotson, Bess Mae	HSS		Roswell, N. Mex.
Tillson Arthur Edward	ChE		Naperville
Title IZ at Dat	7/2		
Tilton, Kenneth Dale	ME	75	Moline
Tilton, Leon Deming Tilton, Walter Joseph	Agr	40	E. St. Louis
Prise 327 4. T		70	L. J. Lowis
Tilton, Walter Joseph	Ch		Fairmount
Timming Henry A	Agr sp	151	Chicago
Timming, Homy 11	2197 37		
Timmins, Henry A Timmis, Alice Maria	HSAgr	97	Chicago
Tinkey, George Otto	EE		Decatur
Tinzmann, Erich Ludwig	REE	637	Chicago
Titus, George Leiner Tobin, Elmer Clayton	BLA	99	Sullivan
Titus, Octorge Lenier		77	
Tobin, Elmer Clayton	E <b>E</b>		Elgin
Todd, Ethel	LA	30	LaHarpe
Todu, Ether		30	
Tolmie, Thomas William	AE		Rockford
Tompkins, Carrie E Tompkins, Elmer Judson	La sp	12	Downs
Tompkins, Carrie 15		16	
Tompkins, Elmer Judson	ME		Eagle Grove, Ia.
Tompkins, Rexford De, Ph.G., 1908	Ch	111	
Tompkins, Rexioid De, FR.G., 1908		141	Mt. Sterling
Tong, Harry Yukit	MSE	23	Shanahai, China
Tong, Harry Yukit Tong, Yung Tso Tonnesen, Harvey Allen	MSE		Shanghai, China Tientsin, China
long, rung 1so		603	I sentsin, Unina
Tonnesen, Harvey Allen	ME	37	Ishpeming, Mich.
Torreson Edward Eritahad			
Torgerson, Edward Fritchoff	Agr	763	Chicago
Tornquist, Alpha Caroline	LA		Champaign
			7
Torrance, Mary, A.B. (Hanover			
Coll.) 1900	Lb	45	Lexington
Torrence, Howard John, A.B. (Mon-			
	SS	114	Monmouth
mouth Coll.) 1910	\$S	111	Monmouth
mouth Coll.) 1910	L sp	111	Moline
mouth Coll.) 1910	L sp	111	Moline
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis	L sp Agr sp		Moline Maquon
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson. Irene	L sp Agr sp LA	34	Moline Maquon Macon
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson. Irene	L sp Agr sp LA	34	Moline Maquon Macon
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson. Irene	L sp Agr sp LA		Moline Maquon Macon Ottawa
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse	L sp Agr sp LA LA CE	34 16	Moline Maquon Macon Ottawa Batavia
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse	L sp Agr sp LA LA CE	34 16	Moline Maquon Macon Ottawa Batavia
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse	L sp Agr sp LA LA CE SS	34	Moline Maquon Macon Ottawa Batavia Macomb
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester	L sp Agr sp LA LA CE SS CerE	34 16 68 <del>1</del>	Moline Maquon Macon Ottawa Bataria Macomb Kankakee
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester	L sp Agr sp LA LA CE SS CerE	34 16 68 <del>1</del>	Moline Maquon Macon Ottawa Bataria Macomb Kankakee
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults	L sp Agr sp LA LA CE SS CerE LA	34 16	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind.
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth	L sp Agr sp LA CE SS CerE LA Mus	34 16 68½ 70	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth	L sp Agr sp LA CE SS CerE LA Mus	34 16 68½ 70	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treisshel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin	L sp Agr sp LA CE SS CerE LA Mus BLA (SS)	34 16 68 <del>1</del>	Moline Maquon Macon Ottawa Bataria Macomb Kankakee Terre Haute, Ind. Chicago Elgin
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin Trimble, Eliza Frances	L sp Agr sp LA LA CE SS CerE LA Mus BLA (SS) HSAgr sp	34 16 68½ 70 63½	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago Elgin Evansville, Ind.
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin Trimble, Eliza Frances Tripp, Belle Chamberlin	L sp Agr sp LA LA CE SS CerE LA Mus BLA (SS) HSAgr sp Mus	34 16 68½ 70	Moline Maquon Macon Ottawa Bataria Macomb Kankakee Terre Haute, Ind. Chicago Elgin
mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin Trimble, Eliza Frances Tripp, Belle Chamberlin	L sp Agr sp LA LA CE SS CerE LA Mus BLA (SS) HSAgr sp Mus	34 16 68½ 70 63½ 26	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago Elgin Evansville, Ind. Belvidere
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mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin Trimble, Eliza Frances Tripp, Belle Chamberlin	L sp Agr sp LA LA CE SS CerE LA Mus BLA (SS) HSAgr sp Mus HSAgr	34 16 68½ 70 63½ 26	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago Elgin Evansville, Ind. Belvidere
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mouth Coll.) 1910 Towndrow, Harry Allen Townsend, Rollin Davis Towson, Irene Trainor, Margherita Madeleine Trantow, Walter Weisse Treadway, Oswell Garland Treischel, Chester Tressel, Harry Shults Trevellyan, Helen Elizabeth Triggs, Leon Alvin Trimble, Eliza Frances Tripp, Belle Chamberlin Tripp, Jennie Louise Tritt, Frances Irene Tritt, Helen Lucille	L sp Agr sp LA LA CE SS CerE LA Mus BLA (SS) HSAgr sp Mus HSAgr HSAgr HSAgr	34 16 68½ 70 63½ 26 66	Moline Maquon Macon Ottawa Batavia Macomb Kankakee Terre Haute, Ind. Chicago Elgin Evansville, Ind. Belvidere Belvidere Bloomington Bloomington
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Turner, Bessie Irene	LA	61	Loda
Turner, David Adolf	Agr sp	531	Chicago
Turner, Frank	Agr	69	DuQuoin
Turner, David Adolf Turner, Frank Turner, Rhodolphus Kibbe	Agr	65	Butler
Turner, Reuben Raymond	Ch	93	Taylorville
Turner, Samuel Rutherford	L	,,,	Virginia
Turner, Samuel Rutherford Turner, Walter Carlyle	$\overline{B}LA$	48	Atlanta
Turnock I lewellyn Alvin	A	33	Elkhart, Ind.
Turnock, Llewellyn Alvin Tuthill, John Kline	ËE	78	LeRoy
Tyler James Hersey	CE	17	Champaign
Tyler, James Hersey Tylski, Walter William	EE	21	Chicago
IIdinolas Dhilin	ChE		Innan City N 7
Udinsky, Philip Ullrich, William	SS		Jersey City, N. J. New Baden
The design transfer William	33	8	New Bagen
Underhill, Harold Wertz	A ME	108	Onawa, Ia.
Uphaus, Bruce Richard		41	Chicago
Urch, Melvin Case	Agr sp	241	Muskegon, Mich.
Valentine, Howard DeWitt Van Buskirk, Fay Carroll VanBuskirk, Roy Harold	ChE	104	Chicago
Van Buskirk, Fay Carroll	ME		Mt. Carroll Mt. Carroll
VanBuskirk, Roy Harold	Agr sp	31	
van Cieve, Mildred May	S Ch	72	Urbana
Van de Mark, Walter Jacob			Waukegan
Van de Mark, Walter Jacob Van den Boom, Gerry Christopher	ME	4	Quincy
Vandercock, Henry Peirce	Agr	701	Lombard
Van Deusen, John LeRoy Van Doren, Frank Eugene Van Doren, Mark Albert Van Frank, Elliott Daniel	CE		Greenville
Van Doren, Frank Eugene	Agr	663	Urbana
Van Doren, Mark Albert	LA	68	Urbana
Van Frank, Elliott Daniel	A		Danville
Van Natter, Francis Marion	Md		Muncie, Ind.
Van Petten Oliver William	CE	42	Champaign
Vansant Rodman Fleming	Agr sp	12	Chicago
Van Petten, Oliver William Vansant, Rodman Fleming Vansant, William Lawrence	ME SP	29	Chicago
Vargas, Hippolyto da Silva	LA		Luneira, S. Paulo,
vargas, Implotyto da Silva	La		Brazil
Votor Margaret	HSAgr sp	12	Chicago
Vater, Margaret	Age (SC)	107	Washington
Vauble, William Carl	Agr (SS) BLA		Amboy
Vaughan, Glenn Poland	DLA	32	
	34		
Vaughn, Myra	Mus		Urbana
Vaughn, Myra Velzy Charles P	Mus ME	75	Urbana Harvey
Vaughn, Myra Velzy Charles P	Mus ME BLA	<b>75</b> 30	Urbana Harvey
Vaughn, Myra Velzy Charles P	Mus ME BLA L	<b>75</b> 30 88	Urbana Harvey North Adams, Mass. E. St. Louis
Vaughn, Myra Velzy Charles P	Mus ME BLA L Agr	75 30 88 27½	Urbana Harvey North Adams, <b>Mass.</b> E. St. Louis La Grange
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt	Mus ME BLA L Agr Agr	<b>75</b> 30 88	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt	Mus ME BLA L Agr Agr AE	75 30 88 27½	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae	Mus ME BLA L Agr Agr AE HSAgr	75 30 88 27½ 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus	Mus ME BLA L Agr Agr AE HSAgr CE	75 30 88 27½ 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore.
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus	Mus ME BLA L Agr Agr AE HSAgr CE Agr	75 30 88 271 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus	Mus ME BLA L Agr Agr AE HSAgr CE Agr	75 30 88 271 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus	Mus ME BLA L Agr Agr AE HSAgr CE Agr CE CE	75 30 88 271 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo.
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus	Mus ME BLA L Agr Agr AE HSAgr CE Agr	75 30 88 271 64	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul	Mus ME BLA L Agr Agr AE HSAgr CE Agr CE CE CE CE EE	75 30 88 27½ 64 109½ 45 74 30	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo.
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer	Mus ME BLA L Agr Agr AE HSAgr CE Agr CE CE CE CE EE	75 30 88 27½ 64 109½ 45 74 30	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson	Mus BLA L Agr AGr AE HSAgr CE Agr CE Agr CE BH ME BLA	75 30 88 27½ 64 109½ 45 74 30 12	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann	Mus ME ME AG Agr Agr AGr AF AGR AGR CE CE CE ME EE BLA HSAgr	75 30 88 27½ 64 109½ 45 74 30 12	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Changign
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison	Mus ME BLA L Agr AGr AE HSAgr CE Agr CE CE EE BLA HSAgr AE	75 30 88 27½ 64 109½ 45 74 30 12	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn.
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain	Mus ME BLA L Agr Agr Agr AE HSAgr CE CE CE EE BLA HSAgr AE CE CAG CE CE CE CE CCE CCE CCE CCE CCE CCE CC	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Wagener, Arthur Melinger	Mus ME ME ME Agr Agr Agr AE Agr AE AGR AE AGR AE AGR AE AGR AE ACSS)	75 30 88 27½ 64 109½ 45 74 30 12	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Karl Marshall Waggoner, Karl Marshall	Mus ME ME ME Agr Agr Agr AE Agr AE AGR AE AGR AE AGR AE AGR AE ACSS)	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99	Urbana Harvey North Adams, Mass. E. St. Louis La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Karl Marshall Waggoner, Karl Marshall	Mus ME ME ME Agr Agr Agr AF HSAgr CE Agr CE CE BLA HSAgr AE EE BLA HSAgr AE A (SS) A SS	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Rankin
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagener, Arthur Melinger Waggoner, Karl Marshall Waggoner, Karl Marshall Waggoner, William Eugene Waggen	Mus ME ME ME ME ME Agr Agr AE CE CE CE CE EE ME EE BLA HSAgr AE (SS) A SS LA	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Rankin Chicago
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagener, Arthur Melinger Waggoner, Karl Marshall Waggoner, Karl Marshall Waggoner, William Eugene Waggen	Mus ME BLA L Agr Agr Agr AGR CE HSAgr CE CE ME EE BLA HSAgr AE A(SS) A SS LA BLA	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Rankin Chicago Chicago
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Karl Marshall Waggoner, William Eugene Wagner, Alexander Wagner, Alexander Wagner, Moller William	Mus ME ME ME ME ME ME MSAgr AGR AGR CE CE CE ME ME BLA HSAgr AE CE CE ASS A SSS LA BLA L	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½ 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Decatur Rankin Chicago Chicago Princeton
Valyn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Arthur Melinger Waggoner, Karl Marshall Waggoner, William Eugene Wagner, Alvin Louis Wagner, Alvin Louis Wagner, Moller William Wagner, Percy Evan	Mus ME ME ME ME ME ME MSAgr AGR AGR CE CE CE ME ME BLA HSAgr AE CE CE ASS A SSS LA BLA L	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Rankin Chicago Cricago Cricago Princeton Chicago
Valyn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Arthur Melinger Waggoner, Karl Marshall Waggoner, William Eugene Wagner, Alvin Louis Wagner, Alvin Louis Wagner, Moller William Wagner, Percy Evan	Mus ME ME Agr Agr Agr AF HSAgr CE Agr CE CE BLA HSAgr AE EE BLA HSAgr AE CE A (SS) A BLA L L CerE	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½ 32 32 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Rankin Chicago Princeton Chicago Princeton Chicago
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Karl Marshall Waggoner, William Eugene Wagner, Alexander Wagner, Alexander Wagner, Alexander Wagner, Holler William Wagner, Percy Evan Wagner, Ralph Russell Wagner, Ralph Russell Wagner, Killiam Andrew	Mus ME ME Agr Agr Agr AF HSAgr CE Agr CE CE BLA HSAgr AE EE BLA HSAgr AE CE A (SS) A BLA L L CerE	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½ 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Decatur Rankin Chicago Chicago Princeton Chicago Pontiac Champaign
Valyn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagener, Arthur Melinger Waggoner, Karl Marshall Waggoner, Karl Marshall Waggoner, Milliam Eugene Wagner, Alexander Wagner, Alexander Wagner, Alvin Louis Wagner, Moller William Wagner, Percy Evan Wagner, Ralph Russell Wagner, William Russell Wagner, William Andrew Wahl, Leo Jacob	Mus ME ME BLA L Agr Agr Agr AGR CE CE CE ME EE BLA HSAgr AE A(SS) A SS LA L L CerE CE	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½ 32 32 32 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mazon St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Rankin Chicago Princeton Chicago Princeton Chicago Princeton Chicago Pontiac Champaign Sterling
Vaughn, Myra Velzy, Charles R Venard, William John Verlie, Emil Joseph Vail, Nathaniel Smith Vail, Ralph Hoyt Vibelius, Siegfred Nathaniel Vincent, Alice Mae Vincent, Chester Andrus Virgin, Eli Horace Voigt, Herbert Louis Volk, Alven Claude Von Valtier, Ralph Paul Voorhees, Lawrence Elmer Vosburgh, William Richardson Voss, Elizabeth Ann Wadsworth, Winthrop Mattison Wagenknight, Oscar Chamberlain Waggoner, Karl Marshall Waggoner, William Eugene Wagner, Alexander Wagner, Alexander Wagner, Alexander Wagner, Holler William Wagner, Percy Evan Wagner, Ralph Russell Wagner, Ralph Russell Wagner, Killiam Andrew	Mus ME ME Agr Agr Agr AF HSAgr CE Agr CE CE BLA HSAgr AE EE BLA HSAgr AE CE A (SS) A BLA L L CerE	75 30 88 27½ 64 109½ 45 74 30 12 103 81 99 106 21½ 32 76½ 32 32 32	Urbana Harvey North Adams, Mass. E. St. Louis La Grange La Grange Joliet Mason St. Johns, Ore. Virginia Chicago St. Louis, Mo. Chicago Upper Alton Oak Park Champaign Minneapolis, Minn. La Grange Decatur Decatur Decatur Rankin Chicago Chicago Princeton Chicago Pontiac Champaign

Walduck, Charles Louis	Cer	120	Chicago
		120	
Walker, Edna Wells	LA		Chicago
Walker, George William	Agr	5	Mackinaw
Walker, George William Walker, James Lynd Walker, Jennie Grace Walker, John S Walker, Walter Walker, Walter			Moline
Walker, James Lynd	LA SS		
Walker, Jennie Grace	22.	8	Cicero
Waller John S	A	35	Aurora
Walker, John S	ā	33	
Walker, Walter	L		Chicago
Wallrerly Dorothy Keziah	HCIA (CO	2) 2	Champaign
Walkerly, Dolothy Rezidit	113211 (33	1 0	
Walkerly, Dorothy Keziah Walkerly, Victoria Pamilla Wallace, Edgar Dearborne Wallace, Edgar Dearborne	HSLA (SS HSLA (SS	108	Champaign
Wallace Edgar Dearhorne	BLA		Chicago
Wallace, Edgar Dearborne		100	
Wallace, Edward	CE	108	Chicago
Wallace, Lewis Bryant	LA		Homer
Wallace, Mabel Clare Wallace, Mabel Clare Wallace, Wellington James Hamilton Wallaje, Stanley Tiffin Waller, Richard Valentine Walter Weley Purple	HSAgr	0.2	
Wallace, Madel Clare	nsagr	92	LaGrange
Wallace Wellington James Hamilton	A	105	Monticello, Mo.
W-11-1- Ct- 1- Time	MnE		Paris
wallaje, Stanley 11mn		44	
Waller, Richard Valentine	EE	11	Elkhart, Ind.
Walnum Wasley Dumbam	EE		Centralia
Wallavell, Wesley Durillalli			
Walser, Frank Emil	Agr sp		Brooklyn, N. Y.
Walter Harrow Hones	A	59	Beach, N. D.
Walters, Harvey Henry Walters, Jesse Noble Walters, Prentice Therman			Deach, IV. D.
Walters, Jesse Noble	Agr	77	Carlisle, Ind.
Walters Prentice Therman	LA	63	Macomb
waiters, Frentice Therman	La		
Walton, James Kelley	Agr (SS)	22	Anna
	Agr	1251	Urbana
Walworth, Edward Harvey		1232	
Wang, Te Chang	Agr		Soochow, China
Wanchenich John Edgar	7	9	Peoria
Wansbrough, John Edgar	L		
Ward, Amy	L HSLA ChE	33	El Paso
	ChE		Rockford
Ward, Francis Hugh			
Ward, Mamie Lawrence	LA	34	Chicago
Ward Madge Virginia	TA	59	Chicago
Traing Mange Vingilia	7	27	Civilia
Ward, Mamie Lawrence Ward, Madge Virginia Ward, Philip Henry	L	88	Sterling
Warfield, Vernon Huff	BLA	65	Urbana
vvarietd, verifon fign			
Warinner, Charles Willis	ME	76	Urbana
Warmolts Lambertus Ir.	CE	21	Oregon
Warmolts, Lambertus, Jr. Warnock, Maude May	7 1		
Warnock, Maude May	LA sp	6	Urbana
Warren, Arthur Richard	BLA	23	Belvidere
Warren Frank Dalas	CE	75	Paw Paw
Warren, Frank Baker	LE	13	
Warren, Henry Russell Waters, Enon Montes	Agr	43	Belvidere
Waters Erre	Aam	67	Datwoit Mich
waters, Enos	Agr	07	Detroit, Mich.
Waters, Orley Morton	Agr SS		Belle Rive
Watteins Dalah Smalley	ME		Sheldon
Watkins, Ralph Smalley			
Watson, Altha Jane Watson, Chauncey Brown Watson, Grover W	HSLA		Topeka, Kan
Wateon Chauncey Brown	Agr	1231	De Kalb
Watson, Chauncey Drown			
Watson, Grover W	L	28	Farmer City
Watson, Jane Coulson Watson, John Wesley Watson, Lelia Elta Watson, Mrs. Margaret Elizabeth	LA	37	Champaign
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watson, John wesley	Agr		De Kalb
Watson, Lelia Elta	HSLA		Champaign
Water Mannest Elizabeth	CC	3	Chambaian
Watson, Mrs. Margaret Elizabeta	SS SS		Champaign
Watson, Perley Melvin	SS	8	Champaign
Watson Warner Allicon	Agr		Macomb
Watson, Wather Amson	219'		
Watson, William Sumner	EE	1021	Ottawa
Watta Claude Harrison	BLA	97	Saunemin
Watts, Claude Hallison		7/	
Watson, Perley Melvin Watson, Warner Allison Watson, William Sumner Watts, Claude Harrison Watts, Ethel Frances Watts, Carree Paymond	Mus	17	Champaign
Watts George Raymond	EE	9	Lawrenceville
Watts, George Raymond			
Watts, George William	3 ( 7)		
Watts, George Raymond Watts, George William Way, Mildred Ruth	ME	36	Chicago
Truy, Militared Much			
	LA	102	Mazeppa, Minn.
Webb, Alonzo C, Jr.	LA A	102 32	Mazeppa, Minn. Nashville, Tenn.
Webb Rayburn Stokes	LA A A	102 32	Mazeppa, Minn. Nashville, Tenn.
Webb Rayburn Stokes	LA A A	102 32 78½	Mazeppa, Minn. Nashville, Tenn. E. St. Louis
Webb Rayburn Stokes	LA A A AE	102 32	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago
Webb Rayburn Stokes	LA A A AE	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago
Webb Rayburn Stokes	LA A A AE Cer	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville
Webb Rayburn Stokes	LA A A AE Cer LA	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana
Webb Rayburn Stokes	LA A AE Cer LA	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville
Webb Rayburn Stokes	LA A AE Cer LA	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Gertrude T	LA A AE Cer LA	102 32 78½ 37 34 57	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville Olney
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Gertrude T	LA A AE Cer LA LA S CE	102 32 78½ 37	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Gertrude T	LA A AE Cer LA LA S CE	102 32 78½ 37 34 57	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville Olney Urbana
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Margaret Weber, Gertrude T Webster, Henry Clayton Wehrman, Carl Olin	LA A AE Cer LA LA S CE BLA	102 32 78½ 37 34 57	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville Olney Urbana Chathan
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Margaret Weber, Gertrude T Webster, Henry Clayton Wehrman, Carl Olin	LA A AE Cer LA LA S CE BLA	102 32 78½ 37 34 57 66 33½	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville Olney Urbana
Webb, Alonzo C, Jr. Webb, Rayburn Stokes Webber, Harry Edwin Webber, Harry Turnell Webber, Helen Waller Webber, Gertrude T	LA A AE Cer LA LA S CE	102 32 78½ 37 34 57	Mazeppa, Minn. Nashville, Tenn. E. St. Louis Chicago Danville Urbana Danville Olney Urbana Chathan

Weinberg, Flora Jane	HSAgr	Rushville
Weiner, Joseph	22. 8	Bunker Hill
Weingartner, Clyde Frederick	AE 36	Rockford
Weis, Herman William	S 95	Holyoke, Mass.
Weisfeld, Leo Harold	A 139 Agr sp 241	Chicago
Weitz, Henry John Conrad Welch, John Maurice	ChE 70	Morris La Salle
William Downard Harrey		
Wilkins, Raymond Harvey Wellman, Orpha May, A.B., 1911	Agr 903	Champaign Champaign
Wells Edward Roy	CE 75	Geneva
Wells, Edward Roy Wells, Fred Sheaff Wells, Olive L	ME 39	Aurora
Wells, Olive L.	SS 73	Winchester
Welsh, Marjorie Cecilia	HSLA 31	Bradford
Welsh, Roger Thomas	Agr 33	
Welton, Floy Evelyn Welty, Wallace Moorhead	SS 4	Marion
Welty, Wallace Moorhead	Agr 63	Chicago
deWerff, Emil Christian de Werff, Henry August Wessels, Vera Gretchen	Agr sp	Farina
de Werff, Henry August	Agr sp(SS) 105	Farina
Wessels, Vera Gretchen	LA	Quincy
West, Harrison	EE 79	Pecksburg, Ind.
Wescott, Clifford Harper	CE 75	Maywood
Westlund, Emil Hilmer	BLA ME 98	Chicago
Weydell, Arthur Theodore		Chicago
Westlund, Emil Hjlmer Weydell, Arthur Theodore Whaite, Charles Miner Wham, Benjamin	EE 108 LA 35	Hoopeston Cartter
Whanley Descent I amo	Agr 24	Carrollton
Wheeler, Bryant Long Wheeler, Irene Burchard	HSLA 100	Laurens, Iowa
Wheeler, Lyman Gage	CE 108	Carrollton
Wheeler, Mildred Emeline	CE 108 SS 9	Stonington
Wheeler Russell Claire	ME (SS) 36	Champaign
Wheeler, Russell Claire Wheeler, William Erastas, Jr.	LA 33	E. St. Louis
Wheelhouse, Mary Elizabeth	LA	Decatur
Wheelock, Loyal Bergen	AE	Chicago
Whelan, Tames Marion, Ir.	CE 108	Chicago Heights
Whipple, Warner Frank Whisler, Wayne Ely	Agr 33 BLA 23	Utica
Whisler, Wayne Ely	BLA 23	Savanna
Whitchurch, Helen Margaret	HSAgr	Salem
White, Bertha Esther	SS 15	Barry
White, Calvin William	BLA 101	Champaign
White, Frank Herbert, Jr.	EE 3 ME 97	Chicago
White, Frank Leon White, George Richard	CE 97	Galva Buffalo, N. Y.
White, George Richard	Cer 104	Chicago
White, Graybiel Graham White, James Gordon	CE 102	Chicago
White John Wilson	L 69	Salem
White, John Wilson White, Mary Louise White, Thomas Kenneth	LA 97	Chrisman
White, Thomas Kenneth	EE 37	New York City
Whitelaw, James Chalmers Cameron Whiteside, Roy Allen Whitford, Leverett George Whitnel, Joe	CerE 41	Chicago
Whiteside, Roy Allen	L sp	Moline
Whitford, Leverett George	Agr 51	
Whitnel, Joe	LA	E. St. Louis
Whitney, Charles Earl Whitney, Elizabeth Ann	CE (SS) 87	Washington, D. C.
Whitney, Elizabeth Ann	SS 25	
Whitney, Helen Woodrow Whitney, Lewis Husted	LA 101	La Grange
Whitney, Lewis Husted	Agr sp	Evanston
Whittaker, Malinda	LA 63	Cortland Vienna
Whittenberg, Daniel Wayne Whittenberg, Sarah Jane Wicoff, John Philip	Agr sp LA (SS) 77	
Wicoff John Philip	SS 22	Greenup
Wiebmer, Anton Henry	EE 75	Quincy
Wiedeman, David, Ir.	BLA	Harvey
Wiedeman, David, Jr. Wiersema, Harry Anthony	AE 116	Berwyn
Wiesenmeyer, Henry Riecks	AE 116 BLA 35	Springfield
Wightman, Richard Mars	CE 42	St. Louis, Mo.
Wikoff, Minna Luella Wilber, Harold Courtney	HSLA 88	Chicago
Wilber, Harold Courtney	BLA	Potomac

Wilbourn, Asa J	L	15	Olive Branch
Wiley, James Elmo Wiley, Robert Ernest	Agr	100	Colfax
Wiley, Robert Ernest	ME		Warren
Wiley, Sarah Jana	HSAgr		Colfax
Wilford Edward James	Agr		Aurora
Wiley, Sarah Jana Wilford, Edward James Wilford, Robert Nicholas Wilkins, Raymond Harvey Wilkins, Stanley Charles	Agr		Aurora
William Daymond Harvey	Agr	901	
William Charles Charles		703	Champaign
Wilkins, Stanley Charles	Agr	400	Chicago
Wilkinson, Elon Gilbert	BLA	47	Geneseo
Wilkinson, Elon Gilbert Wilkinson, Helen, A.B. (Univ. Cin- cinnati) 1909 Willard, Hazel Gertrude Willard, Maude Harriett Willory Harbert Arthur			
cinnati) 1909	Lb	3	Cincinnati, Ohio
Willard, Hazel Gertrude	LA	4	Urbana
Willard, Maude Harriett	S	893	Belvidere
Willcox, Herbert Arthur	A	46	Kastota, Minn.
Wille, Laura May	HSLA (SS	) 31	Kastota, Minn. Enid, Okla.
Willerton, Fay	HSLA (SS)	971	Farmer City
Williams Alfred LeRoy	Agr	115%	Farmer City Ft. Pitt, Saskatchewan
Williams, Charles Nicholas Williams, Earl Clinton	A sp	1104	Peoria
Williams Fast Clinton	EE	74	Gardner
Williams, Earl Chillon		14	
Williams, Frank Lunsford Williams, Fenton Hamilton	LA		St. Louis, Mo.
Williams, Fenton Hamilton	LA		Watseka
Williams, Genevieve	S		Sidell
Williams, Genevieve Williams, Harry Chadbourne Williams, Howard Ivan	S		Augusta, Wis.
Williams, Howard Ivan	EE		Rockford
Williams, Leo A	Agr		DuQuoin
Williams, Leo A Williams, Lulu Hazel Williams, Mary Edith, A.B., 1904,	LA	102	Sidell
Williams Mary Edith, A.B., 1904.			
A.M., 1906	Mus sp		Urbana
Williams, Roy Campell	CE	109	Chicago
Williamson Della	LA	94	Palacios, Tex.
Williamson, Belle Williamson, John Caswell Williamson, Myra Marie		94	
Williamson, John Caswell	LA	2.4	Sullivan Tuscola
Williamson, Myra Marie	LA	31	Luscola
Williford, Edward Allan	EE	37	Nokomis
Willitord, Louis Albert	LA		Nokomis
Willis, Roy Barnes	Agr	68	Mt. Carmel
Willits, Ward Maurice	BLA		Harvey
Willits, Ward Maurice Willson, Glen Irwin	EE	72	Guernsey, Wyo.
Wilson, Albert Edward	SS	9	Wasco
Wilson, Alfred David	Agr		McNabb
Wilson Ashhel Ray	ME	32	Hutsonville
Wilson, Ashbel Ray Wilson, Bernice Celia Wilson, Helen May Wilson, Horace Smith, A.B., 1912	HSAgr	65	Los Angeles, Calif.
Wilson Walen Man	LA	03	
Wilson Hosen Smith A D 1012		157	Chicago
Wilson, florace Shifth, A.D., 1912	REE		Chicago
Wilson, James Aiken	RME (SS)	76	Herrin
Wilson, Norman Kenneth	CE	75	Chicago
Wilson, Norman Kenneth Wilson, Nelle Ruth Wilson, William Webb Windle, Clifford Cover	LA	49	Sparta
Wilson, William Webb	Agr sp	70	Brownstown
Windle, Clifford Cover	Agr sp		Mt. Morris
Winquist, Samuel Victor	BLA	67	Batavia
Wintermeyer, Elsa	S LA	113	Chicago
Winters, Charles Prior Wisner, Samuel Eugene	LA	33	Chicago
Wisner, Samuel Eugene	Cer		Hot Springs, Ark.
Witchell, Barton Edward	EE	37	Vermont
With, George Orlando	MSE	351	Joliet
	A	75	Little Rock, Ark.
Wittenberg, George Hyde	EE (SS)	113	Ct Touis Ma
Wittich, Fred Peter Woelbeling, William Kenneth Wolcott, Ward Shanks Wold, Charles Abraham	EE (33)		St. Louis, Mo.
Woeldeling, William Kenneth	EE	6	Chicago
Wolcott, Ward Shanks	ME	20	Conover, Ohio Littleton, Colo.
Wold, Charles Abraham	CE	108	Littleton, Colo.
Woleben, Dean Parkhurst	CE	87	Chicago Heigths
Wolf, Herman Carl Wolf, Joseph Hanna	EE	108	Edwardsville
Wolf, Joseph Hanna	Agr		Danville, Ky.
Wolfe, Jacob	L	42	Lafayette, Ind.
Wolfe, Viola Esther	L LA	33	Lafayette, Ind. Urbana
Wolfe, William Sidney	AE	124	Urbana
Wolfe, Jacob Wolfe, Viola Esther Wolfe, William Sidney Wolff, Clarence Jacob	BLA	68	Springfield
Womacks, Mabel Clara	LA	66	Champaign
Tomacks, Mater Clara	2012	00	On on pary is

Wong, Wing Fooe Woo, Tsing Too Woo, Wai Shun Wood, Adeline	BLA (SS)	971	Hong Kong, China
Woo, Tsing Too	EE (SS) 1	331	Saichow, China
Woo, Wai Shun	Agr 1	15	Saichow, China Shanghai, China
Wood, Adeline	HSAgr		Sullivan
Wood, Daniel Charles Wood, Harry Gardner Wood, Harry Thomas Wood, Otis LeRoy	EE 1	108	Pekin
Wood, Harry Gardner	EE	75	Jacksonville
Wood, Harry Thomas	LA	65	Hennepin
Wood, Otis LeRoy	Cer	88	Carthage
Woodcock, Helen Ernestine	HSAgr		Ogden, Utah
Woodroofe, Louise Marie Woodruff, Arthur Eugene	LA		Champaign
Woodruff, Arthur Eugene	SS	131	Champaign
Woods, Ardie Geraldine		1091	Macomb
Woods, George Edward	LA	99	Paris
Woodward, Edwin Mortimer	$A_{\perp}$		Odin
Wooldridge, Fay Morse Woolley, James Carson		108	Gifford
Woolley, James Carson	EE ·		Carlinville
Woolman, Rachel Margaret	HSAgr	4	Urbana
Woolman, Richardine	LA (SS)	8	Urbana
Woolston, William Henry	Md 1	122	Genevo
Woolman, Rachel Margaret Woolman, Richardine Woolston, William Henry Wooters, James Ellsworth, (Blackburn Coll.) 1908		0.01	0.11
(Blackburn Coll.) 1908	Agr sp	201	Odin
	BLA	62	Champaign
Wooters, Norman Elsworth	Agr		Champaign
Worrell, Joseph Lloyd		123	Bowen
Worrell, Mabel Fern	LA	94	Bowen
Wooters, Norman Elsworth Worrell, Joseph Lloyd Worrell, Mabel Fern Wray, Charles William Wright, Allan Thurman Wright, Bernice	Agr	0.43	Rockford
Wright, Allan Thurman	LA (SS)	941	Franklin
Wright, Bernice	LA	67	Brocton
Wright, Bernice Wright, Burrell Wright, Douglas, Jr. Wright, Edward Paul Wright, Joseph Franklin Wright, Locach William	L	29	Freeport
Wright, Douglas, Jr.	Agr CE	34	Decatur
Wright, Edward Paul	CE A		Brocton
Wright, Joseph Franklin	BLA		Champaign
Wright, Joseph William Wright, Melvin James Wright, Minnie Roberta	CerE		Chicago
Wright, Melvin James	S LA	(2	Urbana
Wright, Minnie Roberta	LA	63	Urbana
Wright, Samuel Anthony		100	Rome, Ga.
Wright, Wayne Ellsworth	Agr Ch		Garden Prairie
Wright, William Joshua, Jr.			Dongola
Wright, Samuel Anthony Wright, Wayne Ellsworth Wright, William Joshua, Jr. Wrisley, George Alfred Wu, Chi Kao Wu, Pond Sheppon Wu, Wei Yoh		1441	Chicago Shanahai China
Wu, Cli Kao	2 (22)	772	Shanghai, China Canton, China
W. W. Voh	ME		Hunan, China
Wyant, Carl Stanley Wyant, Carl Stanley Wyatt, Frank Archibald, B.S., (Agrl Coll. Utoh) 1910 Wycoff, Benjamin Harrison Wycoff, Delia Wydd Poethe Alice	A	76	Waterloo, Iowa
Wyatt Frank Archibald RS	21	10	17 die 1100, 20 au
(Agrl Coll Htah) 1010	SS	451	Logan, Utah
Wycoff Reniamin Harrison	Agr	701	Laura
Wycoff, Delia	HSAgr	28	Laura
Wykle, Rertha Alice	LA	69	Mahomet
Wykle, Bertha Alice Wykle, Ethel Marie	HSAgr	21	Mahomet
Wyland, Ray Orion	LA		Ringwood, Okla.
Wylie, Arthur Johnson	Agr	281	Utica
Wyman, Wallace		107	Mansfield
Wyman, Wallace Yarwood, Stuart Kenneth	AE	281	Elgin
Yates, Anne Corinne	T.A		Vincennes, Ind.
Yates, Anne Corinne Yen, Chia Cheow		00	Foo Chow, China
Yim, Daniel Jow	ME		Canton, China
Young, Arthur Edwin	Agr		Eugene, Oregon
Young, Edgar Berkley	Agr sp		Newman
Young, Arthur Edwin Young, Edgar Berkley Young, Everett Gillham	RME 1	116	Denver, Colo.
Young, John Law	Agr		Canton, China
Young, Yung Yen		142	Nanziang, China
Younglove, Clyde Charles	AE	72	Sioux City, Ia. Belle Rive
Zahn, Fred Raymond	MSE	70	
Young, John Law Young, Yung Yen Younglove, Clyde Charles Zahn, Fred Raymond Zee, Jeshime Zohn Zeis Henry Charles	EE (SS)	75	Shanghai, China
Zeis, Helliy Charles	LA (SS)	90	Waterloo
Zelle, Carl Alfred	Ch		Lake Fork

Zeller, Simon S Zeppenfeld, Eugene William Zeter, Harry Moyer Zetterholm, Maurice Emil Zimmerman, Anthony Urban Zimmerman, Arthur Charles Zimmerman, Robert Paul Zinser, Robert Bruce Zipf, Oscar Robert, Jr.	LA Agr Agr L ME (SS) A LA (SS) BLA Agr 4F	15 67 31½ 26 41 18 99½	Brazil, Ind. St. Louis, Mo. Lincoln Galesburg Peoria Peru Chilton, Texas Washington Freeport Urbasa
Zipf, Oscar Robert, Jr. Zipprodt, Roy Richard Zollinger, James Edward Zook, Jacob Bloom	Agr AE EE EE (SS)	36 36 73½	Freeport Urbana Alliance, Neb. La Grange

### SCHOOL OF PHARMACY

NAME	COURSE*	RESIDENCE
Anderson, Adolph Emil (Ph.G., 1911)	) PC sp	Moline
Anderson, Albert Franklin	$P$ $\hat{I}$	St. Johns, Ariz.
Arnold, Grover Cleveland		Astoria
Baggaley, William	P sp	Chicago
Baird, Frank, Jr.	P sp	Harvard
Bate, Harry Duddly	P $1$	Chicago
Bautz, Walter	P sp	Chicago
Becker, Edna	P 1	Davenport, Ia.
Beckert, LeRoy	Psp	Chicago
	P 1	Chicago
Blahnik, Emil Albert Boehm, Frederick Evenson	P 1	Neenah, Wis.
	P sp	Chicago
Borrelli, Dominick	D 2	Chicago
Borucki, Edward Anthony Felix	P 1	Gratiot, Wis.
Bosch, August Christopher	P 2 P 1 P 1	
Brekke, Marshall Theodore	P 1	Rice Lake, Wis.
Broom, Lewis Harris	P sp	Effingham
Brown, Lester Elbert	P sp	Pontiac
Bryant, Floyde Wiley	P 1	Elizabeth
Brykowski, Frank	P sp	Cicero
Buckmann, George Edward	P 2	Chicago
Canham, George Ernest	P = 1	Neponset
Chapman, Harold Potter	P 2	Chicago
Clodgio, Norman Timothy	P 2 P 1 P 2 P 2 P 2 P 2 P 2 P 2 P 1 P 1	Chicago
Clark, Francis Edward	P 2	Peoria
Cleveland, Harold Vincent	P 2	Grayslake
Converse, Lawrence	P 1	Chicago
Cook, Albert	P 2	Terre Haute, Ind.
Cooke, Lawson Jacob	P 2	Goodland, Ind.
Crawford, Abiram Lee	P 2	Genoa
Crow, Joseph Benjamin	P 1	Ashley
Cunningham, Thomas William	P 1	Chicago
Dahms, Arthur August	2 \$\$\$1 \$\$1 \$\$2 1 1 \$\$\$1 \$\$2 2 2 2 1 1 \$\$\$\$2 1 2 \$\$2 2 1 2 \$\$\$2 2 1 1 \$\$\$2 2 1 2 \$\$2 2 1 1 \$\$\$2 2 2 1 2 \$\$\$2 2	Chicago
Dancey, John Leonard	P sp	Malden
Davenport, Royal	P 2 P 2 P 1 P 2	Calvin
Davidson, George Edward	P 2	Chicago
DeKoker, Abraham	P 1	Chicago
Donahue, Edward Thomas	P 2	Chicago
Dulla, Joseph Peter	P sp	Chicago
Edgett, Paul Wright	PC 1	Earlville
Egan, Raymond	P sp PC 1 P sp P 2 P 1 P sp P 1 P 1	Chicago
Eicholtz, Guy Wilbur	P 2	Chicago
Ende, Walter Arthur	P 1	Chicago
Erickson, Arthur Henry	P sb	Chicago
Esmond, Wendell Rodgers	P sp P 1 P 1 P 1	Maywood
Falder, Everett Lester	P 1	Chicago
Freedman, Paul	P 1	Chicago

<sup>\*</sup>Abbreviations: P, Pharmacy; PC, Pharmaceutical Chemistry; 1, first year; 2, second year; sp, special.

Pair M William John	D 1
Friedl, William John	D ab
Gabric, Philip	P 1 P sp P 2 P 1 P 1
Gambell, Karl Vine Garside, James William Garrity, Jeremiah Gerald Gates, George Francis Glenn, Elmer Henry	P 4
Garside, James William	P 1 P 1 P sp P sp P sp P sp P 2 P 2
Garrity, Jeremiah Gerald	P 1
Gates, George Francis	P 1
Glenn, Elmer Henry	P sb
Goldstine, Harry Gordon, Samuel Michael	P sp P sp P 1 P 2 P 2
Cardon Comuni Michael	P ch
Gordon, Samuel Michael	D 1
Golfer Illami, Richard William	F I
Gouwens, Peter	P 2
Gragg, Alfred Campbell	P 2
	P sp
Greenawalt, Percy Frank Gustafson, Melsor Eugene Hackler, George Roscoe	P sp P 1 P sp P 2 P 2 P sp P sp P C 2
Custofcon Malsor Fugene	P sh
Harlin Conne Posses	P sp P 2 P 2 P sp
Hackler, George Roscoe	D 2
Hanneman, Lucas Peter Hart, John McDonald	P 2
Hart, John McDonald	P sp
Hecht, Emil	$P$ $\tilde{I}$
Hedberg, Charles Hilding	P sb
Heidhreder Edgar Philip	PC 2
II Cant John	D 2
Heidbreder, Edgar Philip Henry, Carl John Hildebrandt, Philip Ervin	D 1
Hildebrandt, Philip Ervin	F 1
Hirch David	P sp PC 2 P 2 P 1 P 2 P 1 P 2 P 1
Holderread, George Warren	P 2
Hollinshead, Elwood Jay Hoy, Ralph Gilbert	P 1
Hoy Ralph Gilbert	PC 1
Hughner, Charles Lawrence Hulden, Clarence Andrew Huston, Herbert Spangler Hutton, Malcolm Lee Jaeger, Clayton Eugene Lindrich Georre William	P sp
Huebner, Charles Lawrence	D ab
Hulden, Clarence Andrew	P sp P 1 P 2
Huston, Herbert Spangler	P 1
Hutton, Malcolm Lee	P 2
Jaeger, Clayton Eugene	P sb
Lindrich George William	P sp P 1
Jacger, Clayion Eugene Jindrich, George William Johnson, Harry Ernest Jordan, Gill	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
Jonannes, Walter Charles	P sp P 1 P 1 P 1 P 1 P 1 P 2
Johnson, Harry Ernest	F 1
Jordan, Gill	P 1
Kakacek, Joseph John	P 1
Kasnar William John	P 1
Kaufman Isadore	P sh
Kakacek, Joseph John Kaspar, William John Kaufman, Isadore Knox, John McConnell Kost, William Rush	P 1
Knox, john McConnen	D 2
Rost, William Rush	20 .4
Kowalski, Joseph Wengel	P sp P 2 P 1 PC 1 P 2 P 1 P sp
Kraemer, George Charles	P = 2
Krowalski, Joseph Wengel Kraemer, George Charles Krohn, Fred Earl Lavieri Genario Dominic	P 1
Lavieri, Genario Dominic Lee, William Alexander	PC 1
Lee William Alexander	P 2
Leeles Charles Tomos	P 1
Lesko, Charles James Levy, Leon Frank	D ab
Levy, Leon Frank	r sp
Lewman, Everet Andrew, B.S. (Pur-	
due [[niversity, 1902]	P 2
Logan, Albert Wellington	P 2
Logan, Albert Wellington Lollar, Errett Hale Long, George Archibald	P 2
Lang Coorga Archibald	P 2
Luckiesh, Edward Luckasek, Alfred Michael McBride, George William McNeill, Roy Manguei John Reniamin	D 2
Luckiesh, Edward	72 2
Lukasek, Altred Michael	P 2
McBride, George William	P = 1
McNeill, Roy	P 2
Mancusi, John Benjamin	P 1
Mendelsohn, Paul Israel	P 1
Marcohat Paymond Partholomen	P sh
Merschat, Raymond Bartholomew Merschat, Richard William	D 1
Merschat, Kichard William	n 1
Metcoff, Eli	P 4
Meyrick, George Joseph	P 1
Michalak, Casimir Anthony	P 1
Michalak, Casimir Anthony Miller, Thomas	P 1
Miller, David Lyman	PP

Chicago Chicago Chicago Wyoming Spring Valley Chicago Chicago Chicago Chicago Forest Park Chicago Litchfield Chicago Lanark Chicago Pekin Chicago Chicago Chicago Chicago Quincy Aurora Lake Mills, Wis. Chicago Litchfield Morrison Monmouth Chicago Chicago Carthage Elizabeth Chicago Chicago Chicago Rockford Chicago Chicago Chicago Chicago Rensselaer, Ind. Astoria Chicago Chicago Roseville Chicago Chicago Chicago Ottawa

Montezuma, Ind.
LaGrange
Newton
Rensselaer, Ind.
Maquoketa, Ia.
Chicago
Paw Paw
Herrin
Chicago

Murphy, James Stanislaus	P 2
Myerson, Abraham	P 1
Nambara Casas Marsis	PP
Newberry, George Morris Niesen, Charles James Oetzel, Joe Karnes Orr, Charles Clearance	I I
Niesen, Charles James	PI
Oetzel, Joe Karnes	P = 1
Orr, Charles Clearance	P. 1
Pankau, Francis Alfred Pearce, Irving Fitch Polin, Rose	P 2
Pearce Irving Fitch	P 1
Dalin Dace	D 1
rollin, Rose	F 1
Porter, nouston	P 2
Prendergast, Richard Joseph	P 2
Prims, George	P sb
Rackaway Alva Walter	P 2
Rackaway, Alva Walter Radomski, Leon Roman Rueckert, Elmer Edward Sadilek, William	P 2
Darabase Elman Edman	D 1
Rueckert, Elmer Edward	F 1
Sadilek, William	P sp
Schabloske, Charles Leo	P sp
Schmid, Harold	P 1
Schreiner, Albert, Jr. Schultz, Alfred Edward Schultz, Charles John Schulz, Walter Carl	PC 1
Cabulan Alfred Edmand	D
Schultz, Alfred Edward	F 35
Schultz, Charles John	P sp P 2 P 2
Schulz, Walter Carl	P 2
Seuring, Carl Albert Shaw, Albert Jay	P sb
Shaw Albert Tay	P 1
Character Michael	D 1
Shwetz, Michael	n 1
Shwetz, Michael Skillman, Herbert Irving	P L
	P 1
Snyder, Forrest Omo	PC 2
Stables Harry Fleming	P 2
Steel Frank James	P sp P 1 P 1 P 1 P 2 P 2 P 2 P sp
Ch. Man Vant	n sp
Stodden, Karl	r sp
Stadky, George Joseph Snyder, Forrest Omo Stables, Harry Fleming Stech, Frank James Stodden, Karl Stoebig, Louis Elmer Stryzek, Edward Joseph Stulik George	P 2
Stryzek, Edward Joseph	P 1
Stulik, George	P 2
Stryzek, Edward Joseph Stulik, George Subert, Frank James Sullivan, William Clark Tanner, James Clifton	P sp P 2 P 1 P 2 P sp P 2 P 1
Cultimen William Class	n 2
Sullivan, William Clark	F 4
Sullivan, William Clark Tanner, James Clifton Taylor, Harry Arthur	P 1
Taylor, Harry Arthur	P sp
Thompson, Ralph Harold	P i
Taylor, Harry Arthur Thompson, Ralph Harold Todd, Harold Andrew Tomamichel, Robert Peter Trippett, Sidney Bradley Unger, Paul Vann, James Silas Van Nugteren, Frank William	P 1
Tomomichal Pohert Peter	P sp
Tomamicher, Robert Teter	D SP
Trippett, Sidney Bradley	P sp
Unger, Paul	P
Vann, James Silas	PC 2
Van Nuoteren, Frank William	P 2
Vaupell, George Frederick	PC 1
Vavra, Clio	D 1
Vavra, Cho	n 1
Vondrasek, Frank Toseph	PI
Wach, Charles Edward	P 2
Waldo, Reginald Heber Walsh, Thomas George Walter, George Fred Walther, Reuben William	P 2
Walsh, Thomas George	P sb
Walter George Fred	P 2
Walthan Dawhan William	ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב
waither, Reuben william	F 6.
Warczak, John Stanley	P sp
Warzynski, Ladislaus Joseph	P 1
Weaver, Joe Hastings	P 2
Walther, Keuben William Warczak, John Stanley Warzynski, Ladislaus Joseph Weaver, Joe Hastings Weber, Peter Jacob Francis Whitington, Omar Rosewell Whitley, Walker Edward Wiles, Clarence Edward Wilhelm, William Floyd, Ph.G.	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
Whitington Omar Rosewell	P 2
Whitley Walles Edward	D 1
Williey, Walker Edward	n 1
Wiles, Clarence Edward	P SP
Wilhelm, William Floyd, Ph.G.	
(Valparaiso University, 1907)	P sp
Wixsom, Lee Almond	P 2
Wolteredorf Occar	P sp P 2 P 2
(Valparaiso University, 1907) Wixsom, Lee Almond Woltersdorf, Oscar Zarobsky, Otto Frank	p 2
Zarobsky, Otto Frank	P sp P 2 P 2 P 2 P sp
Zeman, Albert William	P SP

Nokomis Chicago Rock Island LaSalle Danville Chicago Chicago Chicago Chicago St. Louis, Mo. Chicago Chicago Mt. Vernon Chicago Lake Mills, Wis. Chicago Chicago Chicago Batavia Waterman Chicago Chicago Chicago Miller, So. Dak. Chicago Wyoming, Ohio Hawthorne Chicago Bethany Chicago Lyons, Ia. Chicago Chicago Chicago Chicago Flanagan Louisville Antioch Earlville Grand Junction, Colo. Quincy Texarkana, Ark. Chicago Chicago Chicago Chicago Chicago Chicago Chicago Grand Junction, Colo. Chicago Chicago Chicago Chicago Chicago Oregon Chicago Waldron, Ark. Waterford, Wis. Kankakee Carbondale Chicago

Chicago Chicago Chicago

# **DEGREES CONFERRED**

1912

#### THE UNDERGRADUATE COLLEGES

DEGREES OF BACHELOR OF ARTS, BACHELOR OF SCIENCE, AND BACHELOR OF MUSIC

Conferred June 12, 1912

ALFRED Noves Abbott, (as of the class of 1885), Bachelor of Science (Agriculture) ARTHUR WILLIAM ABBOTT, Bachelor of Science (Agriculture) M D ABNEY, Bachelor of Arts (Science\*) HERBERT AUGUSTUS ACER, Bachelor of Arts (Literature and Arts) RHODA GILMOUR ADRIANCE, Bachelor of Arts (Literature and Arts) WALTER WILFORD AINSWORTH, Bachelor of Arts (Literature and Arts) ARTHUR JOSEPH ALBRECHT, Bachelor of Arts (Literature and Arts) HAZEL ELLEN ALKIRE, Bachelor of Arts (Literature and Arts) EDWARD DEWALT ALLEN, Bachelor of Arts (Science) RALPH ALLEN, Jr., Bachelor of Science (Agriculture) ORR ALLYN, Bachelor of Science (Agriculture) GUY VERNON ANDERSON, Bachelor of Science (Agriculture) LEO MAHLON APGAR. Bachelor of Science (Electrical Engineering) GROVER SAMUEL ARBUCKLE, Bachelor of Science (Mechanical Engineering) Louise Christabel Armstrong, Bachelor of Arts (Literature and Arts) PEARL WINIFRED ASHTON, Bachelor of Arts (Science) CHARLES WILLIAM ATTEBERRY, Bachelor of Arts (Agriculture) BEULAH WINIFRED BACH, Bachelor of Arts (Literature and Arts) GLEN DAVID BAGLEY, Bachelor of Science (Electrical Engineering) OSCAR ROLAND BAINES, Bachelor of Arts (Literature and Arts) LAURA MINERVA BAKER, Bachelor of Arts (Literature and Arts) ERNEST ROBERT BALDWIN, Bachelor of Science (Agriculture) MAMIE ANNA BALDWIN, Bachelor of Arts (Literature and Arts) GENEVA MAE BANE, Bachelor of Science (Agriculture) TULIET LITA BANE, Bachelor of Science (Agriculture) ORLEY GLEN BARRETT, Bachelor of Science (Agriculture) MARY CORDELIA BARRY, Bachelor of Arts (Literature and Arts) CYRUS WHITE BASSETT, Bachelor of Science (Railway Electrical Engineering) STACY COLLINS BATES, Bachelor of Arts (Science) FRANKLIN WILLIAM BAUER, Bachelor of Arts (Literature and Arts) ARTHUR EDWARD BAUM, Bachelor of Arts (Literature and Arts) THEODORE ANDREW BAUMANN, Bachelor of Arts (Science) CHARLES WESLEY BEALL, Bachelor of Arts (Literature and Arts) KENNETH BEBB, Bachelor of Science (Agriculture) MABEL FLORENCE BEBB, Bachelor of Arts (Literature and Arts) OLIVE RUTH BECKINGTON, Bachelor of Arts (Literature and Arts) CYRENIUS BEERS, Jr., Bachelor of Science (Agriculture) BENJAMIN RUDOLPH BELSLEY, Bachelor of Arts (Science)

JEFFERSON HALL BELT, Bachelor of Science (Electrical Engineering)

<sup>\*</sup>With thesis.

CHARLES HENRY BELTING, Bachelor of Science (Agriculture) PAUL EVERETT BELTING, Bachelor of Arts (Literature and Arts\*) CLARENCE SUMMERVILLE BENNETT, Bachelor of Arts (Literature and Arts) SIMON ADDISON BENNETT, Bachelor of Arts (Literature and Arts) WALTER CHARLES BERKEMEYER, Bachelor of Science (Architectural Engineering) ALICE BIESTER, Bachelor of Arts (Science) ROBERT OVERTON BLACK, Bachelor of Arts (Literature and Arts) EVA LENA BLAIR. Bachelor of Science (Agriculture) EDWARD BROW BLAISDELL, Bachelor of Arts (Science) ELMER ROYAL BLOCK, Bachelor of Arts (Literature and Arts) Augusta Eleanor Bond, Bachelor of Arts (Literature and Arts) GRACE MAY BOOKWALTER, Bachelor of Arts (Literature and Arts\*) RALPH WALKER BOOZE, Bachelor of Science (Railway Electrical Engineering) LESTER EDWARD BOWERS, Bachelor of Arts (Science) LANG, FULTON BOWMAN, Bachelor of Arts (Science) EUGENE PATRICK BRADLEY, Bachelor of Science (Mechanical Engineering) EUGENIA BRADLEY, Bachelor of Arts (Literature and Arts) CHARLES WILLIAM BREMNER, Bachelor of Science (Civil Engineering) ROBERTA MARGARET BROWN, Bachelor of Arts (Science) LEWIS ALLEN BRUBAKER, Bachelor of Science (Architecture) OSCAR ERNEST BULKELEY, Bachelor of Science (Civil Engineering) ARTHUR ERNEST BURWASH, Bachelor of Science (Agriculture) HOWARD MONREAU BUTTERS, Bachelor of Science (Mechanical Engineering) DONALD ERSKINE BUYERS, Bachelor of Science (Mechanical Engineering) CHARLES EDWIN CALDWELL, JR., Bachelor of Arts (Science) MORTON RUSSELL CARLSON, Bachelor of Science (Agriculture) Jose Oriol Carrero, Bachelor of Science (Chemical Engineering) ROY RUDY CARTER, Bachelor of Science (Civil Engineering) FLORA MARGARET CASE, Bachelor of Arts (Literature and Arts) HARLLD CLAYTON M CASE, Bachelor of Science (Agriculture) HAROLD SMITH CASH, Bachelor of Science (Agriculture) ELIZABETH HENRIETTA CASS, Bachelor of Arts (Literature and Arts) SHERMAN CASS, Bachelor of Arts (Literature and Arts) LUCIUS ORVILLE CHAMBERLAIN, Bachelor of Science (Railway Civil Engineering) VUN-DIN CHINZUN CHANG, Bachelor of Science (Agriculture) DENNISON WILLIAMS CHAPMAN, Bachelor of Science (Civil Engineering) ARTHUR MELTON CHAVOUS, Bachelor of Science (Electrical Engineering) HERBERT LOVEWELL CHENEY, Bachelor of Science (Architecture) ALTA FERNE CHIPPS. Bachelor of Arts (Literature and Arts) WILLIAM GLADSTONE CLARK, Bachelor of Science (Agriculture) ROBERT HAYMOND CLARKE, Bachelor of Science (Railway Electrical Engineering) JOEL SIMMONS COFFEY, Bachelor of Science (Agriculture) JOHN ROBERT COLVILLE, Bachelor of Science (Electrical Engineering) CARL COLVIN. Bachelor of Science (Agriculture) VALENTIN CONFESOR, Bachelor of Science (Electrical Engineering) ARTHUR FOSTER CONNARD, Bachelor of Science (Mechanical Engineering) EDWIN LEWIS CONNELL, Bachelor of Science (Electrical Engineering) DELMAR GROSS COOKE, Bachelor of Arts (Literature and Arts) LEON JOSEPH CORBEY, Bachelor of Science (Architecture) JAMES HENRY COULTER, Bachelor of Science (Civil Engineering) LUVERN HENRIETTA CRAWFORD, Bachelor of Arts (Literature and Arts) WILLIAM LESLIE CROW, Bachelor of Arts (Literature and Arts) Louis Edwin Dallenbach, Bachelor of Arts (Science) JOHN WALKER DAVIS, Bachelor of Science (Civil Engineering)

<sup>\*</sup>With thesis.

FRANK CLIFFORD DEAN, Bachelor of Arts (Literature and Arts) ARTHUR DECHMAN, Bachelor of Science (Chemical Engineering) EVA AMES DEDRICK, Bachelor of Arts (Literature and Arts) CHARLES EDMUND DE LEUW, Bachelor of Science (Civil Engineering) IRVING POLHEMUS DEMOTT. Bachelor of Arts (Literature and Arts) HERBERT GLENN DERRY, Bachelor of Science (Electrical Engineering) JOHN JOSEPH DESMOND, Bachelor of Science (Electrical Engineering) FRED ROBERT DEWEND, Bachelor of Science (Architectural Engineering) WILLIAM HOVEY DEWEY, Bachelor of Arts (Literature and Arts) ROBERT WILLIAM DICKENSON, Bachelor of Science (Agriculture) HARRY ALLAN DOANE, Bachelor of Science (Electrical Engineering) OTIS BOND DORSEY, Bachelor of Science (Electrical Engineering) THOMAS DUNN, Bachelor of Arts (Literature and Arts) PHILIP R DUNTON, Bachelor of Science (Mechanical Engineering) ELAIR DILWORTH DUVAL, Bachelor of Science (Railway Civil Engineering) MELVILLE JOSEPH EAMES, Bachelor of Arts (Science) CLARA MARY ECKHARDT, Bachelor of Arts (Literature and Arts\*) Louise Mabelle Eiszner, Bachelor of Arts (Literature and Arts) PHILIP RAYMOND ELFSTROM, Bachelor of Science (Civil Engineering) CHARLES JOHN ELLIOTT, Bachelor of Science (Agriculture) ORLAND I ELLIS, Bachelor of Science (Agriculture) EDITH MAE ELMENDORF, Bachelor of Arts (Science) JOHN LEWIS ERNST, Bachelor of Science (Architectural Engineering) NELLIE TANNER ERSKINE, Bachelor of Arts (Literature and Arts) ARTHUR THOMPSON EVANS, Bachelor of Arts (Science\*) JOHN EDWARD EVANS, Bachelor of Science (Mechanical Engineering) WILLIAM HOWARD FARNUM, Bachelor of Science (Architectural Engineering) ALVIN ISAAC FARR, Bachelor of Arts (Literature and Arts) PER ALEXANDER FAUST, Bachelor of Science (Mechanical Engineering) LOUIS EUGENE FAYART, Bachelor of Arts (Literature and Arts) HARRY FEDDE, Bachelor of Science (Electrical Engineering) CLARENCE WILLIAM FICK, Bachelor of Science (Electrical Engineering) JAMES STUART FINDLEY, Bachelor of Science (Civil Engineering) HAMILTON RODELL FISHBACK, Bachelor of Arts (Science) LAURA ESTELLE FISHER. Bachelor of Arts (Literature and Arts) LEWIS NEBINGER FISHER, Bachelor of Science (Civil Engineering) HARRISON OBIAH FLATT, Bachelor of Arts (Literature and Arts) GEORGIA ELIZABETH FLEMING, Bachelor of Science (Agriculture) GERTRUDE WALLACE FLEMING, Bachelor of Arts (Literature and Arts) JOHN GOODFELLOW FLEMING, Bachelor of Science (Agriculture) HERBERT EDWARD FOSTER, Bachelor of Science (Architectural Engineering) VIOLA CONSTANCIA FRASER, Bachelor of Arts (Science) PAUL BUCHER FRITCHEY, Bachelor of Arts (Literature and Arts) IRENE MASON FUNK, Bachelor of Arts (Literature and Arts) RALPH JOHN GARBER, Bachelor of Science (Agriculture) DANIEL WEBSTER GASKILL, Bachelor of Arts (Science) RALPH PILLSBURY GATES, Bachelor of Science (Chemistry) Rosa-Lee Gaut, Bachelor of Music\* AMELIA LOUISE GAY, Bachelor of Arts (Literature and Arts) HARRY FOREST GEIST, Bachelor of Science (Electrical Engineering) WILLIAM SUMNER GENTRY, JR., Bachelor of Science (Architectural Engineering) IVALOO GENUNG, Bachelor of Science (Agriculture) BEN GEST, A.B. (Augustana College) 1903, Bachelor of Science (Architectural Engineering)

<sup>\*</sup>With thesis.

ARTHUR SOLOMAN GIDDINGS, Bachelor of Science (Electrical Engineering) PAUL HARNED GILLAN, Bachelor of Science (Architectural Engineering) DELBERT GEORGE GIRTON, Bachelor of Arts (Literature and Arts\*) HARRY FRANKLIN GLAIR, Bachelor of Science (Mechanical Engineering) GRACE GLASGOW, Bachelor of Science (Agriculture) RUTH GLASGOW, Bachelor of Science (Agriculture) LEONARD WOOD GLOVER, Bachelor of Arts (Literature and Arts) GALEN VAN RENSSELAER GLOYD, Bachelor of Science (Agriculture) PEARL HAZELETTE GOBEN, Bachelor of Science (Agriculture) JULIUS LUDWIG GOEBEL, Bachelor of Arts (Literature and Arts) LOUISE KATHRYN GOEBEL, Bachelor of Arts (Literature and Arts\*) FRANK ELLWOOD GOODING, Bachelor of Science (Mechanical Engineering) BYNE FRANCES GOODMAN, Bachelor of Arts (Literature and Arts\*) CHARLES GORDON, Bachelor of Science (Railway Electrical Engineering) FRED GUYON GORDON, Bachelor of Science (Municipal and Sanitary Engineering) WILLIS GAYLORD GORDON, Bachelor of Science (Electrical Engineering) TOHN EUBANKS GOSSETT. Bachelor of Arts (Literature and Arts\*) Louis Hill Gourley, Bachelor of Arts (Literature and Arts\*) FLORENCE HARRIETT GRABBE, Bachelor of Science (Agriculture) CHARLES WARREN GRAINGER, Bachelor of Science (Civil Engineering) LESTER HERBERT GRAVES, Bachelor of Science (Electrical Engineering) JOSEPH PEACOCK GREEN, Bachelor of Science (Agriculture) JONSDALE GREEN, JR., Bachelor of Science (Mechanical Engineering) SAMUEL ELZA GREGG, Bachelor of Science (Mechanical Engineering) DONALD KAREL GROVES, Bachelor of Arts (Literature and Arts) EVANGELINE EUNICE GROVES, Bachelor of Arts (Literature and Arts) PERCY WILCOX GUMAER, Bachelor of Arts (Literature and Arts), Bachelor of Science (Electrical Engineering) CHARLES LEROY GUSTAFSON, Bachelor of Science (Architecture) MARY ANNA HAAN, Bachelor of Arts (Literature and Arts\*) VALENTINE BERNARD HABRYLWICZ, Bachelor of Science (Electrical Engineering) THOMAS LLOYD HAINES, JR., Bachelor of Arts (Literature and Arts) HOMER HALL, Bachelor of Arts (Literature and Arts\*) AMY IRWIN HAMPTON, Bachelor of Music\* ALFRED CHESTER HANFORD, Bachelor of Arts (Literature and Arts) JOHN PAUL HANNA, Bachelor of Science (Science) PHILIP SIDNEY HANNA, Bachelor of Arts (Literature and Arts\*) VIGGO HANSEN, Bachelor of Science (Civil Engineering) CLAUDE LEROY HANSON, Bachelor of Science (Civil Engineering) JOSEPHINE ALICE HAPPER, Bachelor of Arts (Science) GEORGE A HARNACK, Bachelor of Science (Civil Engineering) Bernice Harrison, Bachelor of Arts (Literature and Arts) HAZEL CHARLOTTE HART, Bachelor of Arts (Literature and Arts)

neering)
WILLIAM HAWKES, Bachelor of Arts (Science)
JOHN BALDWIN HAWLEY, Bachelor of Science (Architecture)
DON LLEWELYN HAYS, Bachelor of Science (Electrical Engineering)
HARRY NORMAN HAYS, Bachelor of Science (Agriculture)
LLOYD LANNES HELM, Bachelor of Arts (Literature and Arts)

EGBERT JOSHUA HASSELQUIST, Bachelor of Science (Mechanical Engineering)

CLARENCE IRWIN HAVEN, Bachelor of Science (Municipal and Sanitary Engi-

SUSAN ALICE HASH, Bachelor of Arts (Literature and Arts)

ELIZABETH MARY HATCH, Bachelor of Arts (Literature and Arts)
KOICHI HATTORI, Bachelor of Science (Civil Engineering)

<sup>\*</sup>With thesis.

HENRY BENJAMIN HENLEY, Bachelor of Arts (Science)
ROBERT MORROW HENLEY, Bachelor of Arts (Science)
OTHO MANSON HENN, Bachelor of Arts (Literature and Arts)
HAROLD HARVEY HERBERT, Bachelor of Arts (Literature and Arts)
BESSIE EDNA HERSMAN, Bachelor of Arts (Literature and Arts)
CHARLES KAY HEWES, Bachelor of Science (Chemical Engineering)
JAMES HERBERT HEWITT, A.B. (McKendree College) 1908, Bachelor of Science
(Civil Engineering)

GEORGE EDWARD HINCHLIFF, Bachelor of Arts (Science) CLYDE MONROE HOBART, Bachelor of Arts (Literature and Arts) ATHERTON WELLS HOBLER, Bachelor of Arts (Literature and Arts) EDMUND GOTTLIEB HOEPPNER, Bachelor of Science (Architectural Engineering) CHARLES ELMER HOLLEY, Bachelor of Arts (Literature and Arts\*) EDWARD EMIL HOLLMANN, Bachelor of Science (Chemistry) NELLIE NANCY HORNOR, Bachelor of Arts (Science) CARRIE ELSIE HOSKINS, Bachelor of Science (Agriculture) EDNA HOSKINS, Bachelor of Science (Agriculture) Ross Barber Hostetter, Bachelor of Science (Agriculture) BESSIE BUSEY HOULT, Bachelor of Arts (Literature and Arts) CHIH Hsu, Bachelor of Science (Civil Engineering) JOSEPH EARL HUBER, Bachelor of Science (Civil Engineering) ROBERT R HUDELSON, Bachelor of Science (Agriculture) FREDERICK DAVIS HULL, Bachelor of Science (Electrical Engineering) HOMER BOYS HULL, Bachelor of Science (Agriculture) Ross Darwin Ingalls, Bachelor of Science (Electrical Engineering) HAROLD BENNETT INGERSOLL, Bachelor of Arts (Science) WILLIAM VERITY INGRAM, Bachelor of Science (Architectural Engineering) ARTHUR LYLE ISRAEL, Bachelor of Science (Chemical Engineering) EVA JANE JACKSON, Bachelor of Arts (Literature and Arts) HARRY FRANCIS JAHN, Bachelor of Science (Municipal and Sanitary Englneering)

Louise May Jenner, Bachelor of Science (Agriculture) Roy Ernest Jewett. Bachelor of Science (Electrical Engineering) GENJIRO JINGUJI, Bachelor of Science (Electrical Engineering) PAUL EVANGEL JOHNSTON, Bachelor of Science (Chemical Engineering) ROBERT TAYLOR JONES, Bachelor of Science (Architecture) FRANK SPENCER KAILER, Bachelor of Science (Electrical Engineering) DONALD JACKSON KAYS, Bachelor of Science (Agriculture) CHARLES NELSON KELL, Bachelor of Science (Mechanical Engineering) ARTHUR CARYL KELLEY, Bachelor of Arts (Literature and Arts\*) GEORGE BROPHY KENDALL, Bachelor of Science (Agriculture) CHARLES MARSHALL KENNAN, Bachelor of Arts (Literature and Arts) WILLIAM RIDDLE KENT, Bachelor of Arts (Science) ALFRED HENRY KERNDT, Bachelor of Science (Mechanical Engineering) PAUL KIRCHER, A.B., 1911, Bachelor of Science (Civil Engineering) JOSEPHINE KIRK. Bachelor of Arts (Literature and Arts) Frances Kirkwood, Bachelor of Arts (Literature and Arts) CLARENCE ABEL KLOOSTER, Bachelor of Science (Architectural Engineering) HARRY JOHN KLOTZ, Bachelor of Science (Mechanical Engineering) GUY JINK KOONS, Bachelor of Arts (Literature and Arts) HERMAN CHARLES KRANNERT, Bachelor of Science (Mechanical Engineering) ELWIN VALENTINE KRATZ, Bachelor of Science (Architectural Engineering) EMMA AUGUSTA KRAUSE, Bachelor of Arts (Literature and Arts\*) GEORGE DRIVER LAING, Bachelor of Science (Agriculture)

<sup>\*</sup>With thesis.

CHARLES AUGUSTUS LAMB, Bachelor of Arts (Literature and Arts)
NELLIE BLY LAMB, Bachelor of Arts (Literature and Arts)
ALBERT FABRIAN LANDSEA, Bachelor of Science (Electrical Engineering)
HERBERT THAL LEO, Bachelor of Science (Chemistry)
FRANK BONNER LEONARD, Bachelor of Arts (Literature and Arts\*)
RUTH LEONARD, Bachelor of Arts (Literature and Arts)
EDNA LEWIS, Bachelor of Arts (Literature and Arts)
FRED DICKERSON LEWIS, Bachelor of Science (Agriculture)
KATHERINE LEWIS, Bachelor of Arts (Literature and Arts)
RALPH RICE LEWIS, Bachelor of Arts (Science)
RUTH MARIE REBECCA LINDBERG, Bachelor of Arts (Literature and Arts)
LULU LEAH LITTLEJOHN, Bachelor of Arts (Literature and Arts)
ANANIAS CHARLES LITTLETON, Bachelor of Science (Civil Engineering)
WILLIAM CECILE LORENZEN, Bachelor of Science (Municipal and Sanitary Engineering)

CAROLINE LUTHER, Bachelor of Arts (Literature and Arts) NELLIE IRENE McClurg, Bachelor of Arts (Literature and Arts) ANDREW HENRY McConnell, Bachelor of Arts (Literature and Arts) WALLACE ROBERT McConnell, Bachelor of Arts (Science) DWIGHT WESLEY McCoy, Bachelor of Arts (Literature and Arts) RUDOLPH McDermet, Bachelor of Science (Electrical Engineering) EUGENE HARRIS McFARLAND, Bachelor of Science (Architecture) ELIZABETH ROBERTS McGILL. Bachelor of Arts (Literature and Arts) FRANCIS XAVIER McGRATH, Bachelor of Arts (Literature and Arts) HALBERT P MACGREGOR, Bachelor of Science (Chemical Engineering) LIESETTE JANE McHARRY, Bachelor of Arts (Literature and Arts) WILLIAM RAPHAEL McIntire, Bachelor of Science (Civil Engineering) PAUL HARMON McKee, Bachelor of Arts (Literature and Arts) RAY CLARK McLARTY, Bachelor of Arts (Literature and Arts) Forrest C McNary, Bachelor of Science (Civil Engineering) JOHN JOSEPH McQUAID, Bachelor of Arts (Literature and Arts) ITSU MAKI, Bachelor of Arts (Literature and Arts\*) ELIAS MANDEL, Bachelor of Science (Chemistry) ALFRED EDGERTON MANIERRE, A.B. (Yale University) 1902, Bachelor of Science

(Architecture) WELSH WALKER MANSPEAKER, Bachelor of Science (Civil Engineering) HARRY ELLIS MARQUETTE, Bachelor of Science (Railway Mechanical Engineering) SIDNEY GRISWOLD MARTIN, Bachelor of Science (Civil Engineering) CHARLES WILLARD MATTHEWS, Bachelor of Science (Civil Engineering) VICTOR ALVIN MATHIS, Bachelor of Science (Railway Mechanical Engineering) LEIGH MERYL MATTHEWS, Bachelor of Science (Mechanical Engineering) CHARLOTTE MAE MATTOON, Bachelor of Arts (Literature and Arts) EARL NELS MATTSON, Bachelor of Science (Mechanical Engineering) DAVID BLAIR MAVEN, Bachelor of Science (Civil Engineering)
CARL ELMER MERRIS, Bachelor of Science (Electrical Engineering) WILLIAM MEYER, Bachelor of Science (Science) PAUL KEITER MILES, Bachelor of Science (Mechanical Engineering) MABEL LUCILE MILLER, Bachelor of Arts (Literature and Arts) MARIE MAUD MILLER, Bachelor of Arts (Literature and Arts) MILO KIRK MILLER, Bachelor of Arts (Science) SAMUEL LESLIE MILLER, Bachelor of Science (Municipal and Sanitary Engineering)

<sup>\*</sup>With thesis.

JOHN EDSON MILLIZEN, Bachelor of Arts (Literature and Arts)
GUY G MILLS, Bachelor of Science (Civil Engineering)
MARY ETHEL MINER, Bachelor of Science (Agriculture)
EVA MITCHELL, Bachelor of Arts (Literature and Arts)
JUAN PORTUONDO Y MIYARES, Bachelor of Science (Civil Engineering)
FLOYD WILLIAM MOHLMAN, Bachelor of Science (Chemistry)
JULIUS JOHN MOJONNIER, Bachelor of Science (Chemistry)
HARRY EDGAR MONTGOMERY, Bachelor of Science (Electrical Engineering)
MAX ALFRED MONTGOMERY, Bachelor of Science (Architecture)
JAMES RALPH MONTIGEL, Bachelor of Science (Architectural Engineering)
FREDERICK LINDLEY MORGAN, Bachelor of Science (Architectural Engineering)
ROGER LEROY MORRISON, A.B., 1911, Bachelor of Science (Railway Civil Engineering)

MARGARET MOSCHEL, Bachelor of Arts (Literature and Arts) LEO ELWOOD MOSER, Bachelor of Science (Electrical Engineering) CLEDA VIRGINIA MOSES, Bachelor of Arts (Literature and Arts) NELLIE IRENE MOURNING, Bachelor of Arts (Literature and Arts) CIRILO JOSEPH MULLEN, Bachelor of Arts (Literature and Arts) NORRIS FAY MURRAY, Bachelor of Science (Electrical Engineering) HOWARD DIMICK MYERS, Bachelor of Science (Civil Engineering) HENRY NAFZIGER, Bachelor of Science (Electrical Engineering) CHARLES SOL NARKINSKY, Bachelor of Science (Electrical Engineering) ROBERT HAROLD NAU, Bachelor of Science (Civil Engineering) JOSEPH RAYMOND NAY, Bachelor of Science (Architectural Engineering) CARRIE ISABEL NEEDHAM, Bachelor of Arts (Literature and Arts) IDRIS NELSON, Bachelor of Arts (Science) JOSEPH COLBY NELSON, Bachelor of Science (Architecture) RAYMOND ANDREW NELSON, Bachelor of Science (Agriculture) JOSEPH ALLAN NEVINS, Bachelor of Arts (Literature and Arts\*) CHARLES IVAN NEWLIN, Bachelor of Science (Agriculture) FRANCIS STANLEY NICKI, Bachelor of Science (Mechanical Engineering) WILLIAM NIEHAUS, Bachelor of Science (Civil Engineering) LOUISE MINNIE NIERSTHEIMER, Bachelor of Arts (Literature and Arts) LILLIAN GENEVIEVE NOTH, Bachelor of Arts (Literature and Arts) FRED MELVIN Nourse, Bachelor of Science (Electrical Engineering) CHAUNCEY BRISTOL OLIVER, Bachelor of Science (Mechanical Engineering) FLORENCE ARMINA OLSON, Bachelor of Arts (Literature and Arts\*) HAROLD ANTHONY OTIS, Bachelor of Science (Electrical Engineering) AMY MARIE OVERLAND, Bachelor of Arts (Literature and Arts) CYRUS EDMUND PALMER, Bachelor of Science (Architectural Engineering) MATTHEW SIMPSON PARKHURST, Bachelor of Science (Agriculture) HARRY McLauchlan Parsons, Bachelor of Science (Agriculture) ANNA LORINE PECK. Bachelor of Arts (Literature and Arts) BENJAMIN SALISBURY PFEIFFER, Bachelor of Science (Mechanical Engineering) GEORGE WEST PHILLEO, Bachelor of Science (Mechanical Engineering) JOHN BREEN PHILLIPS, Bachelor of Arts (Science) LESTER LEROY PHILLIPS, Bachelor of Science (Electrical Engineering) HARRY POKOWSKI, Bachelor of Science (Civil Engineering) WILMA EDITH PONDER, Bachelor of Arts (Literature and Arts) HATTIE MILDRED POOR, Bachelor of Arts (Literature and Arts) LEWIS LAWRENCE POWELL, Bachelor of Science (Civil Engineering) LUELLA FLORENCE POWERS, Bachelor of Arts (Literature and Arts) SAMUEL RALPH Powers, Bachelor of Arts (Science)

<sup>\*</sup>With thesis.

DAVID CHANDLER PRINCE, Bachelor of Science (Electrical Engineering) CHARLES ALEXANDER PURCELL, Bachelor of Science (Agriculture) ROBERT JOHN QUINN, Bachelor of Science (Chemical Engineering) ISIDOR RAFFIN, Bachelor of Science (Architectural Engineering) GEORGE ERWIN RAMEY, Bachelor of Science (Architecture) GEORGE AUDAS RANSON, Bachelor of Science (Mechanical Engineering) CHARLES RASCHER, Bachelor of Science (Chemical Engineering) SIDNEY CLEN RATHFON, Bachelor of Science (Architectural Engineering) FRED DELONG REXWINKLE, Bachelor of Science (Electrical Engineering) EDWARD MELVILLE RHODES, LL.B., 1900, Bachelor of Science (Agriculture) NELLE MELISSA RIETZ, Bachelor of Arts (Science\*) CHESTER CORWIN ROBERTS. Bachelor of Arts (Literature and Arts) ANNA BELLE ROBINSON, Bachelor of Arts (Literature and Arts) GRACE MAY ROBINSON, Bachelor of Arts (Literature and Arts) PAUL THOMAS ROBINSON, Bachelor of Science (Agriculture) THOMAS LEO ROBINSON, Bachelor of Science (Mechanical Engineering) WALTER ROMAN, JR., Bachelor of Arts (Literature and Arts) PEARL IOLA ROPP. Bachelor of Arts (Literature and Arts) ERNEST JEROME ROSSBACH, Bachelor of Science (Mining Engineering) FLOYD ELZA RUSHER, Bachelor of Science (Agriculture) LEWIS MELVIN RUSSELL, Bachelor of Arts (Literature and Arts) GRACE ANNE RUST, Bachelor of Arts (Science) REUBEN LAWRENCE SANDBERG, Bachelor of Science (Civil Engineering) HARRY OGDEN SAUNDERS, Bachelor of Science (Electrical Engineering) THEODORE JAMES SCHANCE, Bachelor of Science (Mechanical Engineering) CHESTER SCHENCK, Bachelor of Science (Electrical Engineering) FREDERICK JOHN SCHLINK, Bachelor of Science (Mechanical Engineering)
ALEXANDER LOUIS SCHOLZ, Bachelor of Science (Civil Engineering) LEO VINCENT SCHUNDNER, Bachelor of Science (Electrical Engineering) TENJES HENRY SCHUTTE, Bachelor of Arts (Literature and Arts) OTTO JULIUS SCHWARTZ, Bachelor of Science (Agriculture) ERICH WILHELM SCHWARTZE, Bachelor of Arts (Science) ROBERT St. CLARE SEESE, Bachelor of Science (Electrical Engineering) JOHN FRANCIS SEIFRIED, Bachelor of Science (Civil Engineering) OTTO ERWIN SEILER, Bachelor of Arts (Literature and Arts) JOHN ARMSTRONG SELLARDS, Bachelor of Arts (Literature and Arts) ISIDOR MAX SHAPIRO, Bachelor of Arts (Literature and Arts) CECIL JAMES SHAPLAND, Bachelor of Science (Civil Engineering) JOHN SHEAY, Bachelor of Science (Agriculture) VINAYAK YESHAWANT SHEWADE, Bachelor of Science (Chemical Engineering) WILLIAM ANDREW SHIRK, Bachelor of Arts (Literature and Arts) NELLIE MARIE SIGNOR, Bachelor of Arts (Literature and Arts) JOHN WILHELM SIMMONS, JR., Bachelor of Science (Civil Engineering) PAUL CHARLES SIMONINI, Bachelor of Science (Mechanical Engineering) ALEXANDER McDougal Simons, Bachelor of Science (Electrical Engineering) CHARLES LEROY SIMONS, Bachelor of Science (Agriculture) GEORGE AUGUSTINE SIMONS, Bachelor of Arts (Literature and Arts) COLIN CAMPBELL SIMPSON, Bachelor of Arts (Science) CLARA SINCLAIR, Bachelor of Arts (Literature and Arts) VICTOR ROBERT SLADER, Bachelor of Science (Architectural Engineering) WILLIS DANIEL SLONNEGER, Bachelor of Arts (Literature and Arts) CLOYD CLAYTON SMITH, Bachelor of Science (Electrical Engineering) ALDEN EUGENE SNYDER, Bachelor of Science (Agriculture) RAFAEL ARCANGEL Soto, Bachelor of Science (Mechanical Engineering)

<sup>\*</sup>With thesis.

CHARLES HERBERT SPAULDING, Bachelor of Science (Chemical Engineering) AUBREY DAYTON SPENCE, Bachelor of Arts (Science) JOHN McClure Sponsler, Bachelor of Science (Mechanical Engineering) OTTO SPRINGE, Bachelor of Science (Ceramics Engineering\*) AMBROSE CARL STAHL, Bachelor of Science (Mechanical Engineering) AMANDA EMMA STAPEL, Bachelor of Arts (Literature and Arts) CARL STEPHENS, Bachelor of Arts (Literature and Arts) DANA HUGH STEVENSON, Bachelor of Science (Agriculture) TAMES VAIL STEVENSON, Bachelor of Arts (Science) GLENNVILLE EDWARD STEWART, Bachelor of Science (Electrical Engineering) IRA BROKAW STIEFEL, Bachelor of Science (Electrical Engineering) CLARENCE MILLER STITZEL, Bachelor of Science (Agriculture) LAWRENCE ORVILLE STOCKER, Bachelor of Science (Architectural Engineering) TOEN WILLIAM STOKES, Bachelor of Science (Electrical Engineering) EDNA LOUISE STONE, Bachelor of Arts (Literature and Arts) GLADYS LEE STRAIGHT, Bachelor of Arts (Literature and Arts) BERTHA HENRIETTA STRAUCH, Bachelor of Arts (Literature and Arts) EDWARD B STYLES, Bachelor of Science (Civil Engineering) CHARLES MICHAEL SULLIVAN, Bachelor of Science (Electrical Engineering) JOHN BRUCE SUTHERLAND, JR., Bachelor of Science (Architectural Engineering) HORACE CONRAD SWANNELL, Bachelor of Science (Electrical Engineering) FRED EARL SWEITZER, Bachelor of Science (Agriculture) THOMAS AUGUSTUS SYMONS, Bachelor of Science (Agriculture) MILDRED VIRGINIA TALBOT, Bachelor of Arts (Literature and Arts) FLORENCE MAE TANNER, Bachelor of Arts (Literature and Arts) WILLIAM LINCOLN TAYLOR, Bachelor of Arts (Science) ALICE CARY THAYER, Bachelor of Arts (Literature and Arts) RAYMOND ROGERS THOMAS, Bachelor of Arts (Literature and Arts) JOHN PAUL THOME, Bachelor of Science (Agriculture) CHRISTIAN BERNARD THVEDT, Bachelor of Science (Electrical Engineering) JOHN VICTOR TINEN, Bachelor of Science (Chemistry) JOHN NELSON TODD, Bachelor of Science (Mechanical Engineering) Louis Arthur Tohill, Bachelor of Arts (Literature and Arts) HUGH HARRISON TOLMAN, Bachelor of Arts (Literature and Arts) ORLA ALAMON Towns, Bachelor of Arts (Literature and Arts) MARGARET JANE TREAT, Bachelor of Arts (Literature and Arts) ERNEST DEWITT TURNER, Bachelor of Science (Agriculture) WALTER VANTURNER, Bachelor of Science (Mechanical Engineering) EDITH JOY VANCLEVE, Bachelor of Arts (Literature and Arts) EDWARD EVERETT VANCLEVE. Bachelor of Arts (Literature and Arts) LAURA LILLIAN VANCLEVE, Bachelor of Arts (Literature and Arts) ARNOLD CYRUS VANZANDT, Bachelor of Arts (Literature and Arts\*) ARCHIBALD BEEBE VANDEUSEN, Bachelor of Science (Electrical Engineering) HARRIE EARL VANDEVEER, Bachelor of Science (Electrical Engineering) CLAUDE VANGUNDY, Bachelor of Science (Electrical Engineering) ROY L VANIMAN, Bachelor of Science (Electrical Engineering) LYNN BRIAN VAUGHAN, Bachelor of Arts (Science) MINNIE VAUTRIN, Bachelor of Arts (Science) CHARLES EDWIN VEAR, Bachelor of Arts (Literature and Arts\*) JOSEPH McNaughton Vial, Bachelor of Science (Agriculture) GREGORY VIGEANT, JR., Bachelor of Science (Architecture) ARCHIE LEWIS VOIGHT, Bachelor of Science (Mining Engineering) WALTER CHARLES Voss. Bachelor of Science (Architectural Engineering) HARVEY FRANKLIN WAGNER, Bachelor of Science (Civil Engineering)

<sup>\*</sup>With thesis.

HARMAN EBERT WAITS, Bachelor of Arts (Literature and Arts)
ANTHONY WILLIAM WAND, Bachelor of Science (Civil Engineering)
CHARLES HOWARD WARNOCK, Bachelor of Arts (Literature and Arts)
GEORGE EDWARD WARNEN, Bachelor of Science (Civil Engineering)
EDWARD EVERETTE WATERS, Bachelor of Arts (Literature and Arts)
ALEXANDER WATMOUGH ERSKINE, Bachelor of Science (Civil Engineering)
WALTER HARRY WEBER, Bachelor of Arts (Literature and Arts)
MELVIN EICHBERG WEIL, Bachelor of Science (Electrical Engineering)
JOHN RICHARD WELLS, Bachelor of Science (Agriculture)
RALPH RAY WELLS, Bachelor of Science (Agriculture)
LAWRENCE MARTIN WENTER, Bachelor of Science (Mechanical Engineering)
CHARLES H WEST, (as of the class of 1884) Bachelor of Science (Civil Engineering)

JESSE RAYMOND WHEATON, Bachelor of Science (Architectural Engineering) CLIFFORD E WHEELOCK, Bachelor of Science (Agriculture) RUTH LINCOLN WHITAKER, Bachelor of Arts (Literature and Arts)
COURTLAND KIRKE WHITE, Bachelor of Arts (Literature and Arts) ASA J WILBOURN, Bachelor of Arts (Literature and Arts) GEORGE GLENN WILEY, Bachelor of Science (Mechanical Engineering) BEN J WILSON, Bachelor of Science (Civil Engineering) FRANK HARLAND WILSON, Bachelor of Science (Electrical Engineering)
HORACE SMITH WILSON, Bachelor of Arts (Science) EDWARD KITCHELL WITCHER, Bachelor of Arts (Literature and Arts)
WILLIAM PAXTON WITT, Bachelor of Science (Civil Engineering) COLLETTE EVERMAN WOOLMAN, Bachelor of Science (Agriculture) WALTER BOATMAN WORSHAM, Bachelor of Arts (Science\*) ETHEL WEST WRIGHT, Bachelor of Arts (Literature and Arts) GEORGE ELLERY WRIGHT, Bachelor of Science (Architecture) JOHN EDWARD WRIGHT, Bachelor of Science (Electrical Engineering) GEORGE JOHN ZIMMERMAN, Bachelor of Arts (Literature and Arts\*) ADOLF EDWARD ZUCKER, Bachelor of Arts (Literature and Arts\*) ROBERT GARDNER Young, Bachelor of Science (Electrical Engineering)

#### THE COLLEGE OF LAW

#### DEGREE OF BACHELOR OF LAWS

## Conferred June 12, 1912

DE WITT BILLMAN
EDWIN VAN METER CHAMPION
WILFRED MORAN DOHERTY
EDWARD LOUIS EAGLE
CHESTER OWEN FISCHER
WINFIELD CORWIN GILMORE
LOGAN GLASGOW GRIFFITH
ALBERT LEANDER HALL
DORRIS NELSON HITCH
HAROLD EVERETT HUBER
HENRY JEROME INGRAM
THOMAS JEFFERSON KASTEL
ABNER FRED KENDALL

Harry Edward Kerker
Paul Bliss Lauher
Herman Mohr
Ralph Monroe
Tirrie Ostin Prather
Raymond George Real
Charles Simeon Roberts
Lynn Callsen Sieberns
Peter Charles Walters
Charles Provine Webb
Charles Wham
Lloyd Garrison Williams

DEGREE OF DOCTOR OF LAW

JOHN LARIMER KAGY, A.B., 1909

<sup>\*</sup>With thesis.

#### THE LIBRARY SCHOOL

#### DEGREE OF BACHELOR OF LIBRARY SCIENCE

Conferred June 12, 1912

CLARA MABLE BROOKS
WINIFRED FEHRENKAMP
EMMA FELSENTHAL, Ph.B. (University of Chicago) 1910
AURELIA KNAPP, A.B. (Illinois Wesleyan University) 1909
MYRTLE ELIZABETH KNEPPER, A.B. (Highland University) 1907
MARGIE ETHOL LANGDON, A.B. (Nebraska Wesleyan University) 1907
FRANCES WILLARD MATHIS
MARY GERTRUDE MORTON, B.L. (Ohio Wesleyan University) 1905
CATHARINE SUSAN OAKS, A.B. (William Smith College) 1912
HONOR LOUISE PLUMMER, A.B. (University of Colorado) 1907
MYRTLE ANNA RENZ
EMILY ROBISON, A.B., (Temple University) 1909

#### THE COLLEGE OF MEDICINE

#### DEGREE OF DOCTOR OF MEDICINE AND SURGERY

Conferred June 4, 1912, in Chicago

MABEL INDIA ADAMS E ALBERT AISENSTADT HARRY ALDES ALBERT ALLEN OLIVER EDMOND ALYEA JEREMIAH FRANK ARMSTRONG, B.S. ARON MAX BEILIN ARTHUR LEWIS BEYERLEIN CHARLES PATTON BLAIR, A.M. JULIUS BLOOM EUGENE RADFORD BOYER ROY FRED BREEDEN EDWIN RUTHERFORD BUTTERFIELD MABEL ROSINA CARLSON ARTHUR NARCISSE CHATEL BENJAMIN ZIEGFRIED CHANNON GEORGE ABBOTT CHICKERING, B.S. EDWARD ALBERT CHRISTOFFERSON JAMES MATTHEW CONERTY ASHER RAYMOND COTTRELL LAURA MURPHY COTTRELL WALTER WILLIAM CRESS FRED RAYMOND CROOKS SELMA OLGA CZOLBE DAVID DERONDA DELZELL CHARLES CHESTER DICKINSON FRANK DICOSOLA STEPHEN ALPHONSUS DONAHOE WILLIAM EMMETT DONAHOE HARRY JOSEPH DWYER

JOHN ADAM EBERT TOHN ALDEN DEAN ENGESATHER ALEXANDER DONALD FERGUSON CLEMENT FISCHER ROSCOE ROBY FISK ROBERT BENONI FLEEGER ABRAHAM GEORGE FLEISCHMAN HOWARD NORTON FLEXER ABRAHAM ALBERT FREEDMAN HARRY JOSEPH FREEMMEL ALBERT EUGENE FUCHS ALAN EDWARD GAGE KATHARINE GEROW WILLIAM N GOONE TOHN SIMPSON GORDON HAROLD VOGT GOULD OTTO ISHMAEL GREEN, B.S. MERRILL WORTH GRUBB Louis Morris Grunberg HENRY VIRGIL HANSON LYNDON DENNY HARRIS CLARA EDNA HAYES HENRY WALLACE HARTZELL GRACE LINE HOMMAN JOHN H HRABIK ROBERT HURKA FRANK EMERSON INKS, A.B. TAMIE NICOLAS BENSON MUNDY TEWELL CHARLES HARCOURT TOHNSON

MARIE JEANNETTE JONES WALTER RAYMOND JONES, A.B. PAUL VINCENT JOYCE ARTHUR WILLIAM KARCH HARRY KNOTT ISIDOR EMIL KOHN THEODORE KOLVOORD SIGURD HERBERT KRAFT LOUIS ROBERT KRATZENSTEIN LOUIS FRANKLIN KUBELA VIDDA SAMUEL LAURIN TACK RALPH LAVIERI WELCOME BABCOCK LEWIS, B.S. EDMUND WILLIAM LITTLEFIELD ROCCO VINCENZO LOBRAICO GILBERT MARTIN LOEWE RAY EVAN LOGAN LYNN LUZERNE LORENS JOHN HARRISON LYNN HARRISON WILLIS MALTBY WALKER ROSCOE MARKS HARRY WATSON MARTIN JOHN FRANKLIN MARTIN JOSEPH INGRAM MERSHON CARL MICHEL CHARLES EDWARD JOHN MILLER FREDERICK CHRISTOPHER MILLER PAUL MORTON MILLER HAROLD H MOORE LUTHER REMI MOORE RALPH DOLLAHAN MURPHY CLARENCE TAMES MCMULLEN NAUM GEORGE NASIF BARBARA MARIE NICKEY OLIVER S OLSON WALTER KNUTE OLSON LEONARD JOSEPH OSTROWSKI NEAL LAWRENCE O'HERRIN JOHN GABRIEL O'MALLEY RUBY HELEN PAINE BERNARD BARNEY PARKER RUTH AZNIV PARMALEE, A.B. TAMES FRANCIS PEATTIE

FREDERICK JAMES PORT JAMES BERNARD RAUB THOMAS HAROLD REAGAN TORRENCE REED ARTHUR CALVIN RHINE BUDD ROBBINS FREDERICK KING ROGERS SAMUEL JOHN ROSS DELTA EULILLA ROWLAND HOBART CONWAY RUDDICK RICHARD ROOT RUPERT HERMAN LOUIS SARVELA MARTIN PAVEL SASKO WILLIAM CHRISTOPHER SCHIELE CHESTER ORVILLE SHEPARD FRANK EDMUND SHIPMAN, Ph.G. IRENE SMEDLEY, A.B. TAMES ROYAL SMITH OLIVER RUFUS SPALDING CHARLES JOHN STAUFFACHER, B.S. EMIL JAMES STEIN BENJAMIN GEORGE STEPHENSON FRED EICHER STOKEY LESLIE LEWIS STONE, Ph.G. SAMUEL STUSSER Ross Oren Taylor ALVIN THOMPSON CLYDE ROGERS VAN GUNDY WILLARD ROBERT VAUGHAN CHARLES JOHN WAGNER, A.M. THOMAS BURKE WALSH ARTHUR EMIL AUGUST WANDERER FRANK MONROE WELDY ARTHUR WILLIAM WERMUTH WARREN OVERTON WHEELOCK SARAH MARGUERITE WHITE CLARENCE HENRY WIENEKE JOHN CLEMENT WILLIAMSON CLYDE EARL WILSON Roy Hitchon Wilson FRANK CHARLES WINTERS EZRA LLOYD WURTZER

#### THE COLLEGE OF DENTISTRY

DEGREE OF DOCTOR OF DENTAL SURGERY

Conferred June 4, 1912, in Chicago

ERIC ALLAN-MARTIN
MEHDY EDWARD ASGER
SPENCER PAUL ASHLEY
EVART BENJAMIN BERRY
GILBERT G BICKNELL
EDWARD HARRY BUSTA

Albert Frederick Coltman
Frank S Comello
Leo N Daniels
Herman Sidney Deutsch
Edwin Evanson
Joseph Anthony Flannery

IRVIN ULRICH FRIED BERNARD D FRIEDMAN S TOSEPH Z GANTZ PHILIP H GOLDSTEIN BERT CRAWFORD HIGGINS SHINHICHI HARRY ITO B ARNETT JORDAN WILLIAM WALLACE McCRILLIS EMMETT E McDermott HENRY TACOB MANN ROBERT MARTIN OSKAR PAUL MARTIN

ARTHUR CONROD MEYER JOSEPH D PALESE HANNAH ESHOO PATROUS EDLA ALICE PORATH SOLOMON H ROBERTS ABRAHAM ROTH AMANDE ANNA SHAY CORRINE SLAMAN CARROLL W STUART CARL DAVID TAY PETER JOSEPH TEELING JOHN VAN DER VEN

## THE SCHOOL OF PHARMACY DEGREE OF GRADUATE IN PHARMACY

Conferred April 25, 1912, in Chicago

TOHN ELON BIXBY GROVER CLEVELAND BOND Louis Arthur Bossman TOHN CARVELLI JOHN AUGUST DORJAHN ARTHUR THEODORE ENGLAND (Class of 1910) (Class of 1910)
Angelo Marie Ferrer TAMES HOWARD FINNIGAN TESSE HAROLD GALLAWAY TACOB GOLDSTEIN STEPHEN S GORNY BENTAMIN CARL GROOSE ROY WILLIAM HARRELL MICHAEL GEORGE KASPRZYK PAUL McCulloch Kepner (Class of 1911) ARTHUR MILNE KIDD, JR. FRANK W KREMER, JR. (Class of 1910) TOSEPH KRUPICKA

ORVAL WILKIE LEE (Class of 1911) FRANK HENRY LINDEMAN CHESTER ARTHUR LOGAN (Class of 1911) ERNEST ELMER MONTGOMERY (Class of 1911) ADELBERT DALE NEIS (Class of 1910) ERNEST PRESTON OWEN OSCAR W ROGERS (Class of 1910) THOMAS ROSE (Class of 1911) VIRGIL FREDERICK SIEBERT WILLIAM JAMES STINSON ROBERT HARVEY STOCKS WALTER SWIECINSKI JOHN LUDOVIC VALENTINO TOSEPH A WARZYASKI HAYDN HENRY WORLEY

DEGREE OF PHARMACEUTICAL CHEMIST Conferred June 9, 1912, in Chicago

STANLEY C CLARKE BEN LEE EICHER (Class of 1911) HERBERT HENRY HEIDBREDER (Class of 1911)

#### THE GRADUATE SCHOOL

DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE Conferred June 12, 1912

ARVID R.BERT ANDERSON, B.S., 1911 JESSIE EMMA BALDWIN, A.B., 1908

Master of Science (Electrical EngiMaster of Arts (Botany)

IDA EMILY AKIN, A.B. CHARLES THOMAS ANDERSON, B.S., 1911 (Indiana University) 1908 Master of Science (Electrical Engi-Master of Arts (Botany) neering)

PANZY LOUISE BARGER, B.S. (Tarkio College) 1911 Master of Arts (Zoology) JESSIE MELANGTHON BARNHART, B.S., 1906 Master of Science (Chemistry)

FLORENCE GABRILLE BAXTER, A.B., 1911 Master of Arts (Mathematics) CLAUDIUS EDMUND BENNETT, B.S.

(University of Nebraska) 1909 Master of Science (Electrical Engi- Owen Eugene Grigsby, B.S., 1911 neering)

OLAF BERGEIM, B.S. (South Dakota State College) 1908

Master of Science (Chemistry) CHARLES DAY BLACK, B.S., 1911 Master of Science (Electrical Engi-

neering) NORMAN ROBERT BLATHERWICK, B.S. (Grinnell College) 1909

Master of Science (Chemistry) SIMEON JAMES BOLE, A.B. (University of Michigan) 1906 Master of Arts (Education) JOHN HENRY BORNMANN, B.S., 1910

Master of Science (Chemistry) ROYDEN EARL BRAND, B.S., 1909

Master of Science (Dairy Husbandry) ELIZABETH PARNHAM BRUSH, A.B. (Smith College) 1909

Master of Arts (History) FRANK LESLIE CLAPP, B.S. (Lincoln College) 1911 Master of Arts (Education)

HARRY PEACH CORSON, B.S. (New Hampshire College) 1910 Master of Science (Chemistry)

FLORA ALICE DENBY, Ph.B. (Blackburn College) 1911 Master of Arts (English)

CHARLES ELMER DURST, B.S., 1909 Master of Science (Horticulture)

MATI LAL DUTT, B.S., 1911 Master of Science (Electrical Engineering)

WALTER ELMER EKBLAW, A.B., 1910 Master of Arts (Geology) MANUEL CONRAD ELMER, B.S.

(Northwestern College) 1911 Master of Arts (Sociology)

LAWRENCE TURNER FAIRHALL, B.S., 1911 Master of Science (Chemistry) CHARLES FRANCIS FERRIS, B.S., 1911

Master of Science (Agronomy) SARA ADELAIDE FLEMING, A.B. (Greenville College) 1907

Master of Arts (German)

CYRUS STOKES GENTRY, A.B. (McKendree College) 1911 Master of Arts (Classics) GRACE GLASGOW, B.S., 1912 Master of Science (Botany)

RUTH GLASGOW, B.S., 1912 Master of Science (Botany) FRED JAY GRAY, B.S., 1911

Master of Science (Electrical Engineering)

Master of Science (Electrical Engineering)

AXEL FERDINAND GUSTAFSON, B.S., 1907 Master of Science (Agronomy)

HARRY FIELDING HADLEY, A.B. (James Millikin University) 1911 Master of Arts (Chemistry)

HAZEL HARDIN, A.B.

(DePauw University) 1908 Master of Arts (Classics)

ELIZABETH MARY HATCH, A.B., 1912 Master of Arts (Psychology)

HARRY EWALD HEEREN. A.B. (Shurtleff College) 1911

Master of Arts (Political Science) ADA VIOLA HOOVER, B.S.

(Carthage College) 1911 Master of Arts (Classics)

JOSTE BATCHELLER HOUCHENS, A.B. (Tulane University) 1903; B.L.S., 1905

Master of Arts (Sociology) DELTON THOMAS HOWARD, A.B. (Lawrence College) 1910 Master of Arts (Philosophy) JAMES ORTON HUFF, A.B., 1911

Master of Arts (English) LEONARD VAUGHAN JAMES, B.S., 1906 Master of Science (Electrical Engineering)

KATHERINE JENSEN, B.S.

(North Dakota Agricultural College).

Master of Science (Household

LLOYD THEODORE JONES, A.B., A.M. (Lake Forest College) 1909, 1910 Master of Science (Physics)

FRANCES MARJORIE KILBURN, A.B. (Rockford College) 1911

Master of Arts (English) HOWARD BAKER KINGSBURY, A.B., 1909 Master of Arts (Mathematics)

EDWARD AUGUST THEODORE KIRCHER .-A.B., 1911 Master of Arts (Mathematics)

SHERMAN HENRY LITTLER, A.B., 1911 WILLIAM FRED SCHALLER, B.S., 1910 Master of Science (Electrical Engi-Master of Arts (Education) neering) TULIAN HERMAN LEWIS, A.B., 1911 GEORGIA KELLAR SLOUGH, A.B. Master of Arts (Physiology) (Hedding College) 1908 EDWARD ROY LUDWIG. B.S., 1911 Master of Arts (Classics) Master of Science (Architecture) PERCY ALMERIN SMITH, A.B., 1901 JESSIE MCHARRY, A.B., 1911 Master of Arts (Education) Master of Arts (History) WILLIAM HERSCHEL SMITH, B.S. ESTHER MASSEY, A.B., 1905 (University of Nebraska) 1906 Master of Arts (German) Master of Science (Animal LOUIS CLARK MATHEWSON, A.B., A.M. bandry) (Albion College) 1910, 1911 VERA JESSIE SNOOK, A.B., 1911 Master of Arts (Mathematics) Master of Arts (English) FREDERICK EMERSON MERRILS, A.B. IRENE ELIZABETH STALEY, A.B. (Harvard University) 1911 (James Millikin University) 1909 Master of Arts (Political Science) Master of Arts (English) CHARLES LESLIE STEWART, A.B. FLOYD HAYS MILLARD, B.S. (University of Colorado) 1910 (Illinois Wesleyan University) 1911 Master of Arts (Economics) Master of Science (Theoretical and CHARLES JACOB STOWELL, B.S. Applied Mechanics) (Illinois Wesleyan University) 1911 JOHN HARRIS MITCHELL, B.S., M.S. Master of Arts (Economics) (Alabama Polytechnic Institute) 1903, MILTON WINFIELD THOMPSON, A.B., 1904 1910 Master of Science (Chemistry) Master of Arts (Political Science) IRBY COGHILL NICHOLS, B.S., A.M. (University of Mississippi) 1906, 1908 RALPH EARLE TIEJE, A.B., 1910 Master of Arts (English) Master of Science (Mathematics) EDWARD EVERETT VANCLEVE, A.B., 1912 HUA CHING OU, A.B. Master of Arts (Education) (Peiyang University) 1906, B.S., 1911 HELEN GERTRUDE WATSON, A.B. Master of Science (Agronomy) (Hedding College) 1911 MELVERN D OVERMIER, B.S., 1911 Master of Arts (Classics) Master of Science (Electrical Engi-JONATHAN WINBORNE WHITE, B.S. neering) (Agricultural & Mechanical College JAY BOARDMAN PARK, A.B., 1908 of North Carolina) 1903 Master of Science (Agronomy) Master of Science (Agronomy) RAY BOYD PONDER, B.S., 1911 JOHN HAMILTON WHITTEN, A.B., 1911 Master of Science (Mechanical Engi-Master of Arts (Botany) ANNA WALLER WILLIAMS, A.B., 1907 neering) Master of Arts (Household Science) JULIUS ADAM REINEMUND, A.B. CHARLES RICHARD WILSON, A.B. (Augustana College) 1911 Master of Arts (Sociology) (Illinois College) 1911 Master of Arts (Mathematics) MARY EMMA RENICH, A.B., 1911 Master of Arts (Mathematics) DAVID WRIGHT WILSON, B.S. CHARLES FREDERICK CURTIS RILEY, A.B. (Grinnell College) 1910 Master of Science (Chemistry) (University of Michigan) 1905 Master of Science (Zoology) SEWALL GREEN WRIGHT, B.S. (Lombard College) 1911 RAYMOND JEFFERSON ROARK, B.S., 1911 Master of Science (Civil Engineer-Master of Science (Zoology) TRYGVE D YENSEN, B.S., 1907 Master of Science (Electrical Engi-THOMAS WALTER SAMUELS, A.B., 1909 Master of Arts (Economics) neering) THEODORE FREDERICK ZUCKER WILHELMINA MARIE SCHAFFER. A.B. (Graduate Concordia College) 1907 (Lake Forest College) 1911 Master of Arts (German) Master of Science (Chemistry)

#### PROFESSIONAL DEGREES IN ENGINEERING

Conferred June 12, 1912

CHARLES BAKER BURDICK, B.S., 1895; Civil Engineer ALEXANDER DAWES DUBOIS, B.S., 1899; Electrical Engineer GEORGE WALLACE HUBBARD, B.S., 1899; Mechanical Engineer EDWARD SPENCER KEENE, B.S., 1890; Mechanical Engineer CHARLES TRESCOTT RIPLEY, B.S., 1909; Mechanical Engineer GUY HENRY RUMP, B.S., 1904; Civil Engineer ALWIN LOUIS SCHALLER, B.S., 1907; Mechanical Engineer WILLIS APPLEFORD SLATER, B.S., M.S., 1906, 1910; Civil Engineer

#### DEGREE OF DOCTOR OF PHILOSOPHY

#### Conferred June 12, 1912

SAMUEL HERBERT ANDERSON, A.B., A.M. (Park Coll.) 1902, 1903 (Physics) Thesis: Ionization of Photo Electric Properties of Vapors of Alkali Metals MARGARET LEWIS BAILEY, A.B. (Cornell Univ.) 1903; A.M., 1910 (German) Thesis: Milton and Jacob Böhme

STUART JEFFERY BATES, A.B., A.M. (McMaster Univ.) 1907, 1909 (Chemistry) Thesis: The Iodine Coulometer and the Value of the Faraday

CHARLES FRANCIS BRISCOE, A.B. (Indiana Univ.) 1899; A.M., 1904 (Botany) Thesis: Tubercle Bacilli in Nature

DAVID WILLIAM CORNELIUS, A.B. (DePauw Univ.) 1906 (Physics)

Thesis: The Study of the Velocity of Electrons in the Photo-Electric Effect as a Function of the Wavelengths of the Light WILLIAM WELLS DENTON, A.B. (Univ. Michigan) 1907; A.M., 1909 (Mathe-

matics)

Thesis: Projective Differential Geometry of Developable Surfaces JAMES EVERETT EGAN, A.B. (DePauw Univ.) 1908; A.M., 1910 (Chemistry)

Thesis: Observations on the Rare Earths. Yttrium Chloride and the Atomic Weight of Yttrium

HUGH BYRON GORDON, A.B. (Miami Univ.) 1908; A.M., 1910 (Chemistry) Thesis: A Differential Dynamic Method for the Accurate Determination of Relative Vapor-Pressure Lowering

WALTER EDWARD JOSEPH, B.S., (Purdue Univ.) 1907 (Animal Husbandry) Thesis: A Study of Protein as a Factor in the Nutrition of Swine with Special Reference to the Distribution of the Various Forms of Nitrogen in the Animal Body

JACOB GARRETT KEMP, A.B., A.M., 1906, 1910 (Physics)

Thesis: Conditions of Sensibility of Photo-Electric Cells with Alkali Metals and Hydrogen

LEONIDAS ROSSER LITTLETON, A.B. (Southern Univ.) 1907; A.M. (Tulane Univ.) 1910 (Chemistry)

Thesis: Molecular Rearrangements in the Camphor Series. Derivatives of Isocamphoric Acid; Isoaminolauronic Acid and Its Decomposition Products

PAUL FREDERICK REIFF, Ph.D. (Basel) 1901 (History)

Thesis: Friedrich Gentz, an Opponent of the French Revolution and Napoleon

ELLISON LLOYD Ross, B.S. (Iowa State Coll.) 1904 (Chemistry)

Thesis: Phosphorus Metabolism of Lambs

Franklin William Scott, A.B., A.M., 1901, 1903 (English)

Thesis: A Bibliography of the Newspapers and Periodicals of Illinois from 1814 to 1879

EARLE KENNETH STRACHAN, B.S., (Worcester Poly. Inst.) 1908; M.S., 1910 (Chemistry)

Thesis: The Equilibrum Between Arenious Acid and Iodine in Aqueous

Solution

MAURICE COLE TANQUARY, A.B., A.M., 1907, 1908 (Entomology)

Thesis: Biological and Embryological Studies on Formicidae

ARTHUR JERROLD TIEJE, A.B., A.M. (Cornell Univ.) 1903, 1904 (English)

Thesis: The Expressed Critical Theory of European Prose Fiction Before
1740 Exclusive of Problems of Characterization, Setting, and Style
VINCENT HOLLIS TODD, A.B. (Harvard Univ.) 1907; A.M., 1910 (German)

Thesis: Baron Christopher von Graffenried's Newbern Adventures

ALBERT LEMUEL WHITING, B.S. (Massachusetts Agr'l Coll.) 1908; M.S. (Rhode Island State Coll.) 1910 (Agronomy)

Thesis: A Biochemical Study of Nitrogen in Certain Legumes

RICHARD HERMAN WILLIAMS, B.S. (Univ. Toronto) 1905; M.S., 1907 (Animal Husbandry)

Thesis: A Study of Protein as a Factor in the Nutrition of Swine with
Special Reference to the Distribution of the Forms of Ash and
Phosphorus in the Animal Body

#### HONORARY DEGREES

Conferred June 12, 1912

THOMAS JONATHAN BURRILL, Ph.D., LL.D., Doctor of Laws SAMUEL WALKER SHATTUCK, C.E., LL.D., Doctor of Laws

## FELLOWS AND SCHOLARS IN THE GRADUATE SCHOOL

FREDERICK HENRY ADLER, Fellow in German GLEN DAVID BAGLEY, Scholar in Electrical Engineering MARGARET LEWIS BAILEY, Traveling Fellow in German ALICE BIESTER, Scholar in Household Science (Nominee of the College of

ROBERT WESLEY BROWN, Scholar in Geology DANIEL MILTON BRUMFIEL, Scholar in Entomology JOSEPHINE ELIZABETH BURNS, Fellow in Mathematics FRED EMERSON CLARK, Scholar in Economics

JAMES EDWARD ACKERT, Fellow in Zoology

MARGARET VARA COBB. Fellow in Zoology

JESSE LEROY CONEL, Scholar in Zoology (Nominee of James Millikin University) SIDNEY HAYES Cox. Scholar in English

EDWARD SAMUEL DOWELL, Scholar in Political Science

WILLARD CLARKE EELLS, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)

DUANE TAYLOR ENGLIS, Scholar in Chemistry (Nominee of Eureka College) OLA MATTIE JOSEPHINE ESKELSON, Scholar in Mathematics (Nominee of Hedding College)

SILAS EDGAR FAUQUHER, Scholar in Botany EDNA LAURA FORREY, Fellow in German

STANLEY BLACK FRACKER, Scholar in Entomology

DENTON LORING GEYER, Fellow in Philosophy JOHN WALTER GOOD, Fellow in English

BYNE FRANCES GOODMAN, Scholar in History

SAPPHO CECELIA GRAHAM, Scholar in German

RUBY MABEL GRIMES, Scholar in Mathematics MARY ANNA HAAN, Scholar in the Classics

HARRY FIELDING HADLEY, Research Fellow in Industrial Chemistry (Engineering Experiment Station)

HOMER HALL, Scholar in English

ALFRED CHESTER HANFORD, Scholar in Political Science

EDWARD OTTO HEUSE, Fellow in Chemistry

WILLIAM GRIFFITH HILL, Scholar in English (Nominee of Carthage College)

CHARLES ELMER HOLLEY, Scholar in Education

NELLIE NANCY HORNOR, Scholar in Physics

HAROLD ALLEN HOUSTON, Research Fellow in Industrial Railway Engineering (Engineering Experiment Station)

JOSEPH WHITNEY HOWARD, Scholar in Chemistry (Nominee of Shurtleff College) JOSEPH EARL HUBER, Scholar in Civil Engineering

PAUL WESLEY IVEY, Scholar in Economics

ELWIN VALENTINE KRATZ, Scholar in Civil Engineering (Nominee of College of Engineering)

EDWARD AUGUST THEODORE KIRCHER. Fellow in Mathematics

PHILIP AUGUSTUS LEHENBAUER. Fellow in Botany

GRETCHEN KATHERINE LUTZ, Scholar in German

RUDOLPH McDermer, Research Fellow in Electrical Engineering (Engineering Experiment Station)

JANET MALCOLM MACDONALD, Scholar in the Classics

WALLACE MACFARLANE, Fellow in Agronomy

HAROLD HOSSACK MACGREGOR, Fellow in Chemistry

GEORGE ALFRED MANEY, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)

MAYNE SEGUINE MASON, Research Fellow in Electrical Engineering (Engineering Experiment Station)

LOUIS CLARK MATHEWSON, Fellow in Mathematics

T EARLL MILLER, Scholar in History

EDNA MOSHER, Scholar in Entomology

WILLIAM EARL MOSHER, Research Fellow in Mechanical Engineering (Engineering Experiment Station)

JONAS BERNARD NATHANSON, Scholar in Physics LLOYD FRANCIS NICKELL. Fellow in Chemistry

FRANK GARM NORBURY, Scholar in Chemistry (Nominee of Illinois College)

RUDOLPH HANS NOTTELMANN, Scholar in History (Nominee of Monmouth

ALFRED WALTER ORCUTT, Fellow in Zoology

ARTHUR FREDERICK PEINE, Fellow in History

DAVID CHANDLER PRINCE, Scholar in Electrical Engineering

CHARLES FREDERICK CURTIS RILEY, Fellow in Zoology

CLARISSA RINAKER, Fellow in English

CORNELIA RUTH SEAWELL, Scholar in the Classics

ROBERT ST.CLAIR SEESE, Scholar in Electrical Engineering

SIBELT LUKE SIMMERING, Fellow in Mechanical Engineering

MARY MARGARET SPANGLER, Scholar in English EDWIN ROLLIN SPENCER, Scholar in Education

JOHN WILLIAM STOKES, Research Fellow in Electrical Engineering (Engineering Experiment Station)

WILHELM ARTHUR SWENSON, Scholar in Mathematics (Nominee of Augustana College)

HOWARD RICE THOMAS, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)

LILY BELLE VOEGELEIN, Scholar in Classics (Nominee of Northwestern College)

IRMA ELIZABETH VOIGT, Fellow in German

MARGARET WASHINGTON, Scholar in Entomology

PAUL SMITH WELCH, Fellow in Zoology GUY YANDALL WILLIAMS, Fellow in Chemistry

WALTER JACOB WOHLENBERG, Research Fellow in Mechanical Engineering (Engineering Experiment Station)

PHILIP QUINCY WRIGHT, Scholar in Political Science (Nominee of Lombard College)

ADOLPH EDWARD ZUCKER, Scholar in German

THE FRANCIS JOHN PLYM FELLOWSHIP IN ARCHITECTURE

EDWARD ROY LUDWIG, 1911

## UNIVERSITY HONORS

#### 1911-1912

AWARDED BY THE FACULTY OF THE UNIVERSITY FOR SCHOLARSHIP

#### COLLEGE OF LITERATURE AND ARTS

## PRELIMINARY HONORS

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NORMAN FERDINAND BRUNKOW

OLEN ROBERT CLEMENTS

RUTH HALLIDAY

MARKALBERT VAN DOREN RUTH HALLIDAY

MARK ALBERT VAN DOREN

#### THE DEGREE OF A.B. WITH HONORS

PAUL EVERETT BELTING, in Philosophy LOUISE KATHERYN GOEBEL, in German BYNE FRANCES GOODMAN, in History
Louis Hill Gourley, in French FRANK BONNER LEONARD, in Economics JOSEPH ALLAN NEVINS, in English
FLORENCE ARMINA OLSON ADOLF EDWARD ZUCKER, in German

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Louis Edward Mensenkamp FORREST HAMILTON MURRAY ANTON PRASIL

HERBERT LOUIS VOIGT

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ALICE BIESTER ARTHUR LYLE ISRAEL

ALICE BIESTER FLOYD WILLIAM MOHLMAN LOUIS EDWIN DALLENBACH NELLE MELISSA RIETZ NELLIE NANCY HORNER MINNIE VAUTRIN

#### SPECIAL HONORS

OTTO SPRINGE, in Ceramic Engineering
FLOYD WILLIAM MOHLMAN, in Chemistry Jose Oriol Carrero, in Chemical Engineering CHARLES KAY HEWES, in Chemical Engineering CHARLES RASCHER, in Chemical Engineering
CHARLES RASCHER, in Chemical Engineering NELLE MELISSA RIETZ, in Zoology

#### COLLEGE OF ENGINEERING

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ARTHUR HILDEMAN AAGARD
GLENN WALLACE BASS
ARTHUR WILLIAM BAUMGARTEN
JOSEPH MANDEL BRANDSTETTER
RALPH BURKE
JAMES ERROL CHURCHILL
JOHN CUTLER
ARMIN ELMENDORF
ELIJAH ROBERT HATOWSKI
LINN HELANDER
WAYNE ISAAC KIRBY
CLOVIS WARD LINCOLN
ERWIN MOSES LURIE
ELMER MCCORMICK

GEORGE MEYER, JR.
MYER OSCAR NATHAN
RAYMOND WILLIAM OWENS
JULIUS CLARK PALMER
JOHN WALLACE PARK
HENRY EUGENE PENGILLY
GEORGE EDWARD QUICK
FRANK ERWIN RICHART
DAVID MORRIS RIFF
JULES HENRY ROBERT
HAROLD GREENE SPRAGUE
HENRY RAYMOND TEAR
HAROLD EARLE THOMPSON
CLIFFORD HARPER WESTCOTT

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EDWIN LEWIS CONNELL
JOHN WALKER DAVIS
LEWIS NEBINGER FISHER
PAUL HARNED GILLAN
JAMES HERBERT HEWITT
JOSEPH EARL HUBER
ELWIN VALENTINE KRATZ

LIONEL LYMAN LIVINGSTONE
PAUL KEITER MILES
GEORGE WEST PHILLEO
DAVID CHANDLER PRINCE
CHESTER SCHENCK
JOHN WILLIAM STOKES
ARCHIBALD BEEBE VAN DEUSEN
ROY L VANIMAN
WALTER CHARLES VOSS
HARVEY FRANKLIN WAGNER

#### SPECIAL HONORS

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#### COLLEGE OF AGRICULTURE

#### PRELIMINARY HONORS

LOUIS ASA ABBOTT
EARL KIRKWOOD AUGUSTUS
GEORGE STANLEY BEAUMONT
FREDERICK JACKSON BLACKBURN
RUSSELL CARD FRAZEE
ROBERT PERCY GAGE
CECIL A HUGHES

WILFORD ESPIN JOHNS
CATHERINE PLANCK
GLENN WILSON SCHROEDER
EDMUND CLAY SECOR
WARREN MAXWELL SHELDON
TOM CANDY STONE
WALLACE MOOREHEAD WELTY

#### FINAL HONORS

HAROLD CLAYTON M CASE
GEORGIA ELIZABETH FLEMING
ROBERT R HUDELSON

Donald Jackson Kays George Brophy Kendall Dana Hugh Stevenson SCHOOL OF MUSIC

SPECIAL HONORS

ROSA-LEE GAUT

COLLEGE OF LAW

PRELIMINARY HONORS

WILLIAM EVERITT BRITTON IRA ALLEN DIXON STANLEY LANDON POGUE NATHAN COOK SEIDENBERG

LIBRARY SCHOOL

FINAL HONORS

Emma Felsenthal

### MILITARY HONORS

# COMMISSIONS AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD ISSUED BY THE GOVERNOR IN 1912

PAUL KIRCHER
HOMER BOYS HULL
LESTER HERBERT GRAVES
HERBERT THAL LEO
LEIGH MERYL MATTHEWS
ARTHUR WILLIAM ABBOTT
VICTOR ROBERT SLADEK
ARTHUR LYLE ISRAEL
ROSS DARWIN INGALLS
KENNETH BEBB
JOHN RICHARD WELLS
ARCHIBALD BEEBE VAN DEUSEN

WALTER CHARLES BERKEMEYER
EDMUND GOTTLIEB HOEPPNER
LEO VINCENT SCHUNDNER
SIDNEY GRISWOLD MARTIN
LEO MAHLON AFGAR
WALTER CHARLES VOSS
WILLIAM GLADSTONE CLARK
HERMAN CHARLES KRANNERT
FRED EARL SWEITZER
WILLIAM VERITY INGRAM
WILLIAM RAPHAEL MCINTIRE
GLEN DAVID BAGLEY

Louis Edwin Dallenbach

## REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY AS DISTINGUISHED CADETS

PAUL KIRCHER HOMER BOYS HULL LESTER HERBERT GRAVES HERBERT THAL LEO

LEIGH MERYL MATTHEWS
ARTHUR WILLIAM ABBOTT
VICTOR ROBERT SLADER
ROSS DARWIN INGALLS
ARCHIBALD BEEBE VAN DEUSEN

#### ROSTER OF OFFICERS AND NON-COMMISSIONED OFFICERS OF THE UNIVERSITY CORPS OF CADETS, 1912-13

Colonel.	E. H. Leslie
Lieutenant Colonel	E. C. Hohman
Captain and Regimental Adjutant	L. B. Ermeling
Captain and Regimental Quartermaster	Cleaver Thayer
Captain and Regimental Commissary	F. M. Atkinson
Regimental Sergeant Major	J. N. Greene
Regimental Quartermaster Sergeant	E. A. Williford
Regimental Commissary Sergeant	******
Regimental Color Sergeant	F. S. Wells
Regimental Color Sergeant	R. R. Zipprodt

#### FIRST BATTALION

Major	H. C. Thompson
First Lieutenant and Adjutant	
Second Lieutenant and Quartermaster	
Sergeant Major	L. E. Thorne

	Company "A"		Company "B"
Captain,	R. U. Nichols	Captain,	A. W. Davis
1st Lieut.	H. G. Wood	1st Lieut.	I. C. Palmer
2nd Lieut.,	H. L. Bauer	2nd Lieut.,	A. H. Aagaard
1st Sergt.,	A. Burns	1st Sergt.,	S. Corley
Sergeants,	J. C. Hostetler	Sergeants,	C. H. McCauley
	G. H. Dubin		E. R. Dillavou
	J. B. Jefferson		J. N. Noble
	R. E. Morris		G. E. Sanders
	E. H. Stewart		A. D. Hawley
	A. M. Baker		R. M. Wightman
Corporals,	H. C. Albin	Corporals,	E. W. Andrews
	C. W. Crawford		C. H. Gemberling
	W. M. Fowler		W. H. Kuhn
	M. B. Kugler		W. M. Stevens
	P. Meyers		S. Zeller
	B. Sterenberg		
	C. P. Winters		
	Company "C"		Company "D"
Captain,	C. A. Wold	Captain,	P. E. Buck
1st Lieut	H. S. Mueller	1st Lieut.,	H. P. Ousley
2nu Lieut.			J. E. Lewis
1st Sergt.,	1. R. Cline	1st Sergt.,	
Sergeants,		Sergeants,	
Junguario,	E. J. Bartz	200800000	A. M. Barreau
	E. A. James		A. J. Benner
	G. D. Stopp		F. H. Kelley
	H. N. Mottern		T. Plack
	J. M. Jansen		P. G. Schiesswohl
Corporals,	O. C. Detering	Corporals,	C. H. Apple
	G. L. Kyle		C. E. Dickey
	Jos. H. Miller		W. L. Golden
	T. D. Randall		J. S. Milnes
	D. D. Stonier		C. H. Rehling
	A. Zollinger		E. B. Stout
			B. Wham

#### SECOND BATTALION

I list Dicutellant and Mujutan	L	L. Derry
Second Lieutenant and Quart	ermaster	E. M. Lurie
Sergeant Major		H, K. Sheldon
Company "A" Captain, K. C. Kirchhoff 1st Lieut., P. C. Rich 2nd Lieut., N. F. Brunkow 1st Sergt., L. H. Dunham Sergeants, K. Carpenter W. B. Erwin O. A. Krueger L. A. Parker	Captain, 1st Lieut., 2nd Lieut., 1st Sergt.,	H. K. Sheldon  Comfany "B" L. A. Bocttiger H. P. Vandercook A. W. Baumgarten E. C. Elles E. R. Brunskill R. L. Rush G. H. Butler L. D. Knapp
A. R. Siebens H. E. Barden		C. E. Trowbridge A. P. Peyraud

Corporals,	B. Austin	Corporals,	B. A. Barker
	B. E. Dirks		P. R. Greenman
	I. Larson		P. W. Mourning
	G. B. Leno		H. A. Tanneson
	B. H. Stubblefield		
	Company "C"		Company "D"
Captain,	F. X. Loeffler	Captain,	M. G. Severinghaus
1st Lieut.,	N. L. Partridge	1st Lieut.,	H. E. Codlin
2nd Lieut.,	G. Meyer	2nd Lieut.,	
1st Sergt.,	R. B. Hinman	1st Sergt.,	C. E. Koch
Sergeants,	R. L. Barlow	Sergeants,	H. Cutting
oci geams,	C. C. Bradley	~,	W. O. Rathfon
	C. H. Grewe		H. L. Cummings
	J. L. Kobylanski		G. D. Griswold
	R. W. Parker		A. E. Kidd
	A. Tarranciano		W. T. Reace
C		Corporals,	S. Duner
Corporals,	E. Barth	Corporais,	A. B. Hammitt
	H. Dubin		S. C. Linbarger
	G. Hammer		R. E. Thomas
	A. C. G. Leverenz		R. E. Thomas
	M. Nelson		
	J. F. Romine		
	H. R. Tear		
	THIRD	BATTALION	
Major			I. F. Brown
First Lieut	enant and Adjutant	*****	F A Konf
	utenant and Quartermaster		
Second Lie	MajorMajor		H I Kircher
Sergeam 1		***************************************	
	Company "A"		Company "B"
Captain,	I. R. Ruby		M. L. Nebel
1st Lieut.,	E. K. Augustus	1st Lieut.,	G. H. Cole
2nd Lieut.,	R. A. Kane		F. H. Bergland
1st Sergt.,	W. K. Norris	1st Sergt.,	R. S. Mason
Sergeants,	J. E. Demuth	Sergeants,	R. Dunham
	M. E. Slater		W. E. Whisler
	W. W. Anderson		R. N. Coolidge
	C. C. Gamble		G. E. Gable
	G. H. Lindsey		E. R. P. Rall
	W. K. Parker		R. E. Helfrick
	J. C. C. Whitelaw	Corporals,	G. W. Blake
Corporals,	A. B. Bingham	•	I. A. Elliott
Corporate,	C. M. Linsley		R. L. Lundin
	O. Rue		E. Nolte
	L. D. Tilton		
			Company "D"
	Company "C"	Contain	E. A. Glenz
Captain,	W. K. Palmer	Captain,	H. O. Danz
1st Lieut.,	E. L. Hasker	1st Lieut.,	
2nd Lieut.,		2nd Lieut.,	
1st Sergt.,	C. A. Nebel	1st Sergt.,	W. A. Piper
Sergeants,	J. L. Fish	Sergeants,	G. W. Watts
	F. Taggart		H. F. Cogdall
	C. B. Carlson		R. M. Husband
	G. H. Matteson		E. S. McPherson
	D. B. Rich		C. L. Ritts
	I. R. Foster		H. L. Flodin

H. L. Flodin

D. B. Rich J. R. Foster

Corporals, E. A. Nordstedt Corporals, W. H. Chambers P. H. Everhart W. A. Honer
J. L. McKeown
T. D. Shonts

B. R. Uphaus

#### FOURTH BATTALION

Second Lie	nant and Adjutanttranstertenant and Quartermaster	• • • • • • • • • • • • • • • • • • • •	.H. Devine
Captain 1st Lieut., 2nd Lieut., 1st Sergt., Sergeants,	Company "A" W. O. Andrews E. C. Prouty O. F. Foster F. Ritter A. W. Gross C. J. Anderson M. Holmburger V. L. Morris D. C. Scheele	Captain, 1st Lieut., 2nd Lieut., 1st Sergt., Sergeants,	Company "B" J. F. Kohout L. W. Miner W. J. Blum F. J. Strock G. M. Girhard V. G. Altpeter V. F. Dobbins C. F. Hood E. L. Seyster
Corporals,	C. P. Barkman L. Clemons G. C. Faurote C. W. Hudelson L. D. Marquis B. Oswalt J. M. Silkman H. H. Walters	Corporals,	A. H. Grunewald E. Cochran J. E. Fetherston C. A. Kellogg F. W. Mattoon R. Parsons
Captain, 1st Lieut., 2nd Lieut., 1st Sergt., Sergeants,	F. H. Thorne G. L. Ayers B. H. Decker C. A. Metz C. H. S. Lekberg W. E. Wheeler	1st Sergt.,	Company "D" M. P. Taylor W. H. Scales W. E. Bow H. C. Webster R. L. Herman S. S. Davis A. H. Huisken John H. Miller W. S. Shively V. D. Cylkowski
Corporals,	W. C. Armstrong H. Colson A. K. Fogg S. Korshak G. H. Pike J. D. Snook R. T. Welsh	Corporals,	D. F. Comstock E. Fontaine C. G. Kramer A. M. Metzler F. Pinkney T. K. White
	Signal Company C. W. Gates L. W. Faulkner E. R. Hatowski W. A. Wagner		Battery C. B. Sayre E. R. Foster J. E. Churchill H. R. Wiesenmeyer

Sergeants, W. H. Simon L. C. Bow H. W. Deakman

R. C. Swope 1. Faulkner C. T. Pennebaker

Corporals, H. E. Austin A. D. Donnell W. Ramsev

V. Admsey
J. A. Lwagner
J. A. Andrews
T. A. Ross H. B. Rogers

Sergeants, H. Bigler F. A. Forty

A. M. Heinzelman C. E. Sims M. E. Hoit W. F. Anderson

#### ANNUAL COMPETITIVE DRILLS-1912

Winner University Gold Medal......Cadet Private H. O. Danz 

### INFANTRY

#### University Bronze Medals

#### (Sophomore Competitive Drill)

#### COMPANY "C" 1ST BATTALION, UNIVERSITY REGIMENT

Captain J. R. Wells
1st Lieut. P. E. Buck
2nd Lieut. C. A. Wold
1st Sergt. J. W. Herndon
Sergeant B. H. Blake 1st Lieut. P. E. Buck
2nd Lieut. C. A. Wold
1st Sergt. J. W. Herndon
Sergeant B. H. Blake
Sergeant J. Cutler
Sergeant V. O. Seed
Sergeant A. F. Barron
Sergeant O. F. Foster
Sergeant S. T. Claffin
Corporal E. A. Brown
Corporal F. R. Fleig
Corporal A. N. Laird
Corporal B. J. Rappaport
Corporal B. J. Rappaport
Corporal G. H. Wittenberg
Lance Corporal J. M. Nickelsen
Lance Corporal G. G. Sears
Private R. N. Engle
Private W. B. Hadden
Private W. S. Hatch
Private W. H. Jacobson
Private W. S. Kirkpatrick
Private H. O. McCracken
Private E. E. Mitchell
Private W. P. Munsell
Private W. P. Munsell
Private M. Murr
Private M. Murr
Private M. Hurr
Private M. F. Huitlips
Private M. F. E. Poston
Private R. N. Engle
Private H. H. Harris
Private W. S. Hadden
Private W. S. Hatch
McCracken
Private W. S. Henderson
Private W. S. Kirkpatrick
Private W. S. Kirkpatrick
Private W. P. Munsell
Private M. J. Morrisey
Private M. J. Morrisey
Private M. J. Morrisey
Private M. Private M. Hurr
Private M. Private M. Private M. Hurr
Private M. Privat Captain J. R. Wells Private B. Abney Private G. F. Bissell Private J. M. Bowen Private C. H. Brant Private T. C. Burwash Private H. E. Thompson
Private M. B. Carr Private M. Y. T. Tong
Private R. F. Clark Private H. L. Voigt
Private G. D. Crittenberger Private G. I. Willson
Private H. O. Danz Private H. T. Wood

Private F. L. Dunavan Private R. N. Engle Private R. C. Quirk Private R. S. Reed Private R. E. Risser Private A. L. Schuyler Private C. H. Tapping Private H. E. Thompson

#### \*University Bronze Medals and Pins

#### (Freshman Competitive Drill)

### COMPANY "B" 3rd BATTALION, UNIVERSITY REGIMENT

Captain W. C. Voss	
1st Lieut. M. L. Nebel	
2nd Lieut. E. R. Coolidge	
1st Sergt. G. H. Bargh	
Sergeant P. C. Rich	
Sergeant R. W. Owens	
Sergeant H. G. Wood	
Sergeant G. V. Carrier	
Sergeant D. D. Tibbetts	
Sergeant C. Velzy	
Corporal R. L. Smart	
Corporal G. E. Quick	
Corporal J. H. Robert	
Corporal T. J. Rector	
Corporal J. E. McDonald	
Corporal H. F. Skadden	
Lance Corporal P. G. Rapp	
Lance Corporal T. Plack	
Private R. Ashwill	
Private R. E. Augustus	
Private R. P. Baker	
Private R. L. Barlow	
Private R. O. Barnes	
Private E. M. Barnum	
Private W. D. Boyer Private E. T. Buckley	
Private E. T. Buckley	
Private W. J. Callahan	
Private A. W. Carlson	
Private C. B. Carlson	
Private G. H. Dubin	
Private F. A. DuHadway	
Private E. C. Elles	
Private R. Garner	
Private H. Geitner	
Private L. M. Gilmore	
Private R. M. Graves	

Private A. W. Gross Private J. H. Gumz Private H. W. Heafer Private R. M. Husband Private L. A. Husted Private J. R. Jones Private W. J. Keese Private S. Korshak Private C. G. Kramer Private C. L. Langan Private G. H. Lindsey Private R. C. Maley Private S. H. Minchin Private V. L. Morris Private P. L. Myers Private C. A. Nebel Private L. A. Parker Private A. W. Peterson Private C. P. Pfrangle Private F. B. Richardson Private F. P. Rohrer Private E. Sandstedt Private W. S. Shively Private A. D. Sizer Private M. Stein Private H. Steinmeyer Private R. L. Strang Private A. R. Summers Private L. F. Swartz Private C. E. Trowbridge Private R. H. Van Buskirk Private J. B. Wainwright Private B. L. Wheeler Private R. M. Wightman Private C. P. Winters Private P. R. Zipprodt

#### ARTILLERY

#### University Bronze Medals

Captain E. A. Rich 1st Lieut. C. B. Sayre 2nd Lieut. J. J. Kurt Sergeant E. R. Foster Private C. A. Atwood Private F. E. Britton Private O. A. Budina Private A. Bergman Private O. R. Clements Private H. G. Menke

Private O. A. Shoger

<sup>\*</sup>Sophomores, bronze medals; Freshmen, bronze pins

#### SIGNAL COMPANY

#### University Bronze Medals

Captain G. D. Bagley 1st Lieut. C. W. Gates 2nd Lieut. L. A. Dole Corporal F. J. Flexer Corporal J. H. Measer Private H. E. Austin Private H. W. Deakman Private D. S. Frayer
Private C. L. Luckett
Private E. R. Hatowski
Private A. C. Pratt
Private V. S. Rice
Private E. M. Shaw
Private R. C. Swope
Private G. A. Ziska

#### RIFLE COMPETITION

University Bronze Medals

COMPANY "B" 1ST BATTALION TEAM

Sergeant A. W. Baumgarten Corporal C. S. Craigmile Private L. A. Abbott Private G. Christy Private L. K. Gilpatrick Private D. O. Mount

### INTERCOLLEGIATE DEBATERS

1911-1912

#### IN THE CENTRAL DEBATING CIRCUIT

Agginst Wisconsin CLYDE MONROE HOBART RAYMOND GEORGE REAL WILLIAM JASPER PRINCE LESTER EUGENE FRAILEY FRANK BONNER LEONARD, JR. ARTHUR VERNON ESSINGTON

Against Iowa RAYMOND GEORGE REAL

#### IN THE STATE UNIVERSITY DEBATING LEAGUE

Against Ohio State CHARLES WILLIAM BURTON LESTER EUGENE FRAILEY FRANK BONNER LEONARD, JR.

Against Indiana LYMAN MARION FORT CHARLES MARSHALL KENNAN TAMES VAIL STEVENSON

REPRESENTATIVE IN THE STATE PEACE CONTEST ARTHUR EVERETT HOLCH

REPRESENTATIVE IN THE NORTHERN ORATORICAL LEAGUE JAMES VAIL STEVENSON

## SUMMARY OF DEGREES

Honorary Degrees LL.D.		2
Degrees in the Graduate School		_
A.M4	6	
M.S. 3		
C.E.		
E.E.		
M.E.		
Ph.D. 2		
FII.D	U	
Total	113	
Baccalaureate Degrees		
A.B., College of Literature and Arts16	4	
A.B., College of Science		
B.S., College of Science		
B.S., College of Engineering		
B.S., College of Agriculture	Q	
B.Mus., School of Music		
D.M.us., School of Music	_	
Total	493	
Degrees in Law		
LL.B	5	
J.D.		
Total	26	
Degrees in Library Science		
B.L.S	12	
Totals, Colleges and Schools in Urbana	11	644
		011
Degrees in Medicine		
M.D	145	
Degrees in Dentistry		
D.D.S	36	
Degrees in Pharmacy		
Ph.G		
Ph.C	3	
_	-	
Total	37	
TOTAL, DEPARTMENTS IN CHICAGO		218
TOTAL, ALL DEPARTMENTS		864

# SUMMARY OF OFFICERS

Officers of Instruction	Men	Women	Total
Professors	. 71	2	73
Associate Professors	10		10
Assistant Professors	61	2	63
Associates	37	2	39
Instructors	101	16	117
Assistants	84	18	102
Special Lecturers	і	I	2
Graduate Assistants	23	4	27
Student Assistants	10	2	12
Student Assistants in Military	5		5
Total	403	47	450
Officers of Administration	36	3	39
Total Instructional and Administrative.	439	50	489
Deduct duplicates	22	2	24
Net total	417	48	465

## SUMMARY OF STUDENTS

College and Course		Seniors Wom.		į		uniors Wom.	T'l.			phomo Wom.	
LITERATURE AND AF	RTS										
General L. and A		68	92		37	66	103		31	75	106
Business		5	33		40	32	42 32		45		45
Household Science		73	130		77	100	177		76	22	22
Totals	3/	/3	130		//	100	1//		70	97	173
SCIENCE											
General Science		6	44		22	9	31		15	7	22
Ceramics		•	5 4		9	****	9		9	****	9
Ceramic Engineering Chemistry			8		6	****	6		5		8
Chemical Engineering	13		13		8		8		19		19
Medical Preparatory			3		7		7		12		12
Household Science		11	11			9	9			6	6
Totals		17	88		55	18	73		68	13	81
TOTALS ARTS AND SCIENCE	128	90	218		132	118	250		144	110	254
ENGINEERING											
Architecture	. 22	•	22		43		43		38		38
Architectural Engin'r'g			18 32		17 47		17 47		27 56		27 56
Civil Engineering Electrical Engineering.		****	22		80		80		53		53
Mechanical Engineering			18		54		54		49		49
Mining Engineering	. 3		3		5		5		8		8
Mun. & San. Engin	3 2	••••	3 2		9	****	9		4 2		4
Railway Civil Engin Railway Electr. Engin. Railway Mech. Engin	í		1						1		í
Railway Mech. Engin	. 2		2		2		2		1		1
Totals	. 123		123		259		259		240		240
AGRICULTURE											
General Agriculture		1	92		115	1	116		137		132
Household Science		9	9			20	20			20	2
Totals		10	101		115	21	136		137	20	15'
MUSIC		3	5		••••	7	7		1	6	
TOTALS, ONDERGRADUATES	XI UI	KBANA		**********		hird Y		********		cond Y	000
LAW					29	1111 4 1			27	onu 2	2
LIBRARY SCHOOL										16	1
Totals, Undergraduate	AND F	ROFESS	IONAL	Schoo	LS A	T URBA	NA				
GRADUATE SCHOOL											
SUMMER SESSION (1											
Total Registration Deduct students retu											
Net total, Summer											
TOTALS AT URBANA											
PHARMACY (Chicago)											
Ph.G. Course									54	****	5
Ph.C. Course									3		
Total									57		5
Total in University to Deduct Duplicates											
NET TOTAL	•										

## 1912-1913

	Freshmen	1		Specials			Totals	
Men	Wom.	T'l.	Men	Wom.	T'l.	Men	Women	Total
					1.00	015	242	550
199	121	240	4	13	17 1	215 245	343 5	558 250
127	2 55	129 55	****	1	1	243	115	115
246	178	424	4	15	19	460	463	923
240	170	727	-	15	17	100	100	720
40	7	55	2		2	125	29	154
48 23		23		****		46		46
15	****	15	****	****	****	30		30
22	1	23				41	1	42
28 36	•	28 36	1	****	1	69 58	****	69 58
20	18	18	****	1	1	30	45	45
172	26	198	3	1	4	369	75	444
418	204	622	7	16	23	829	538	1367
710	204	023		20		02)	•••	100.
96	1	97	3		3	202	1	203
67		67		****		129		129
78	1	78	3	****	3	216	****	216
121	****	121	3	****	3	279	****	279
138	****	138	1		1	260 24	****	260 <b>24</b>
8 7 2 2	****	8 7 2 2	1	****	1	24	****	24
2		2				8 5		
2			****	****	****	5 7	****	8 5 7
520	1	521	1 12		1 12	1154	1	1155
320	1	321	12	****	12	1134	1	1133
271	1	272	149	10	159	763	13	776
	42	42		5	5	••••	96	96
271	43	314	149	15	164	763	109	872
1	35	36	****	31	31	4	82	86
	***************************************	************	*********	*************		2750	730	3480
	First Year							
61		61	8		8	125		125
2	17	19	****	****		2	33	35
***********	•••••					2877	763	3640
************	***************************************	•••••	************************			269	62	331
						430	210	640
***********						222	51	273
			************************			208	159	367
	***************************************		*******			3354	984	4338
63	3	66	47		47	164	3	167
5		5	1	****	1	9		9
68	3	71	48		48	173	3	176
						3527	987	4514
***********	***************		***************************************			4	4	8
		*************	*****			3523	983	4506

## GEOGRAPHICAL DISTRIBUTION

#### STUDENTS AT URBANA 1912-1913

By Countries, States, Counties in Illinois, and Senatorial Districts in Illinois

Summary			
	Men	Women	Total
Foreign Countries	120	1	121
Insular Possessions of U. S	8	1	9
States other than Illinois	674	158	832
Total outside Illinois	802	160	962
Total outside Illinois	302	100	702
Illinois	2548	820	3368
			-
Total	3350	980	4330
Foreign Countries			
Argentina	3 1	****	3 1
Bohemia	1	****	i
Bulgaria	2	****	2
Canada	9	1	10
China	44		44
Cuba	2	****	2
Denmark	1	****	1
Egypt	1		1
Germany	4	****	4
Holland	1	****	1
India	9	••••	9
Italy	1	****	1
Japan	15	****	15 10
Mexico	10 2	****	2
Norway Orange Free State	1	•	1
Peru	2	****	2
Russia	6	••••	6
South Africa	2	****	2
Sweden	1	****	1
Switzerland	1	****	1
Turkey	1	••••	1
Total, Foreign Countries	120	1	121
Insular Possessions			
	2	1	2
Hawaii	2	1	3 4
Philippine Islands Porto Rico	4 2		2
TOTO RICO			
Total, Insular Possessions	8	1	9
STATES			
Alabama	4	1	5
Arizona	4	****	4
Arkansas	9	2	11
California	16	4	20
Colorado	12	5	17
Connecticut	1	1	2
Delaware	****	••••	
District of Columbia	4		3
Florida	1	4	3

	Men	Women	Total
Georgia	2		2 5
Idaho	5		
Indiana	145	36	181
Iowa	66 25	19 8	85 33
Kansas	10	٥	10
	2	1	3
Louisiana	1	1	1
Maryland	2		2
Massachusetts	20	2	22
Michigan	38	11	49
Minnesota	22	5	27
Mississippi	4	1	5
Missouri	81	9	90
Montana	2	****	2
Nebraska	11	3	14
Nevada	1		1
New Hampshire	1	1	2
New Jersey	7	1	2 8 3
New Mexico	1	2	
New York	33	8	41
North Carolina	••••	1	10
North Dakota	9 34	11	45
Ohio	13	4	17
Oklahoma	2	*	2
Oregon	11	3	14
Rhode Island	1	ŭ	1
South Carolina	ī	****	î
South Dakota	6	1	
Tennessee	5	î	7 6
Texas	10	3	13
Utah	3	1	
Vermont	2		4 2 3 13
Virginia	1	2 3	3
Washington	10		13
West Virginia	4	1	5
Wisconsin	30	5	35
Wyoming	2	****	2
m . 1 . a			030
Total, States	674	158	832
Counties in Illinois			
Adams	32	12	44
Alexander	7	4	11
Bond	5	6	9
Boone	11		17
Brown	6	4	10
Bureau	33	6	39
Calhoun		****	
Carroll	9	2	11
Class	8	3	11
Christian	341	264	605
Clark		3	25
Clay	8	4	12
Clinton	3	2 3	8
Coles	20	7	27
Cook	557	111	668
Crawford	20	1	21
Cumberland	6	2	8
DeKalb	27	5	32
DeWitt	15	5 7	22

	Men	Women	Total
Douglas	14	7	21
DuPage	24	. 7	27
Edgar	25	7	32
Edwards			5
Effingham	3 7	2 3 3 5 1 8	10
Fayette	14	3	17
Ford	14	5	19
Franklin	5	1	6
Fulton	40	8	48
Gallatin	4		4
Greene	23	3	26
Grundy	19	4	23
Hamilton	****	****	
Hancock	20	4	24
Hardin	****	****	****
Henderson	2	****	2
Henry	26	3	29
Iroquois	30	11	41
Jackson	14	4	18
Jasper	6	4 2 5	8
Jefferson	13	5	18
Tersey	4	****	4
Jo Daviess Johnson	7	3	10
Johnson	6	2	100
Kane	86	14	100
Kankakee	21	5	26
Kendall	7	2	9
Knox	23	8	31
Lake	18	2	20
LaSalle	66	13	79
Lawrence	9	2	11
Lee	18	6	24
Livingston	19	3 2 14 5 2 8 2 13 2 6 8 6	27
Logan	10	6	16
McDonough	21	10	31
McHenry	17	5 14	22
McLean	39	14	53
Macon	32	6 3 6	38 22 35
Macoupin	19	3	22
Madison	29	6	35
Marion	21	6	27 9 12 7
Marshall	8 8 7	1	9
Mason	8	4	12
Massac		••••	7
Menard	4	2	6
Mercer	6	3	9 5
Monroe	4	2 3 1 6 2	
Montgomery	28	6	34
Morgan	12	2	14
Moultrie	20	4	24
Ogle	15	2 5	17
Peoria	57	5	62
Perry	3 17		3 25
Piatt	17	8	25
Pike	14	3	17
Pope	1	****	1
Pulaski	2 11	1	3
Putnam		1	12
Randolph	3 7	5 2 11	8
Richland	29	11	40
St. Clair	33	11	40
Saline	6	5 3	38
Sangamon	50	13	9 63
- Janganion	30	13	00

		Men	Women	Total
Schuyler	***************************************	9	2	11
		7	2	9
		11	3	14
Stark	***************************************	5	3	8
Stephens	on	15 25	4 10	19 35
Tazewell			10	11
	n		20	72
		6	2	8
		14	2	16
	ton	4	2 2	6
		14	3	17
		8	3	11
	e	34	7	41
	•••••••••••••••••••••••••••••••••••••••	24	11	35
	on	13	4	17
	go	34	5	39
woodiore	d	7	8	15
Total	1, Counties	2548	820	3368
1014	i, Countries	2340	020	2300
	SENATORIAL DISTRICTS IN ILI	TNOTE		
District	Counties	Men	Women	Total
	Cook, 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31			
	17, 19, 21, 23, 25, 27, 29, 31	557	111	668
8	Boone, McHenry, Lake	46	13	59
10	Winnebago, Ogle	49	7	56
12	Jo Daviess, Stephenson, Carroll	31	9	40
14	Kane, Kendall		16	109
16	Putnam, Marshall, Woodford, Livingston	45	18	63
18 20	Peoria	57	5	62
20	Grundy, Kankakee, Iroquois	70 77	20 27	90
24	Vermilion, Edgar	378	276	104 654
26	McLean, Ford	53	19	72
28	Logan, DeWitt, Macon.	57	19	76.
30	Schuvler, Cass, Mason, Brown, Menard,		17	, 0
	Tazewell	60	25	85
32	Hancock, McDonough, Warren	55	16	71
33	Henderson, Mercer, Rock Island	37	14	51
34	Douglas, Coles, Clark	42	18	60
35	Whiteside. Lee, DeKalb	79	18	97
36	Adams, Pike, Scott. Calhoun	53	17	70
37 38	Cross James Mark.	64	12	76
39	Ta Salla	74 66	12 13	86 79
40	Christian Shelby Cumberland Fayette	53	11	64
41	Christian, Shelby, Cumberland, Fayette DuPage, Will	48	14	62
42	DuPage, Will. Clinton, Clay, Marion, Effingham	37	14	51
43	INDX: I'UILUII	63	16	79
44	Monroe, Randolph, Perry, Washington,			
	Monroe, Randolph, Perry, Washington, Jackson	28	12	40
45		62	15	77
46	Jefferson, Wayne, Richland, Jasper	40	12	52
47	Madison, Bond	34	10	44
48	nardin, Gallann, White, Edwards, Wa-	***	10	
49	bash, Lawrence, Crawford	50	10	60
50	St. Clair	33	5	38
30	Alexander, Pulaski, Union, Williamson, Franklin	37	11	48
51	Johnson, Massac, Pope, Saline, Hamilton	20	5	25
0.	Johnson, massac, Tope, Same, Halliton			
Total	ls	2548	820	3368

### DIRECTORY OF ALUMNI **ASSOCIATIONS**

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Pres.: George P. Mills, '84, Evanston, Illinois Sec'y-Treas.: A. H. Clark, 74 E. 12th street, Chicago, Illinois

#### LOCAL ALUMNI ASSOCIATIONS

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